

524425

THE
FLORICULTURAL
CABINET,
AND
FLORISTS' MAGAZINE.

JANUARY TO DECEMBER, 1836.

VOLUME IV.

CONDUCTED BY JOSEPH HARRISON,

GARDENER TO THE

RIGHT HON. LORD WHARNCLIFFE,

WORTLEY HALL.

LONDON:

WHITTAKER & CO., AVE-MARIA-LANE.

PRINTED, FOR THE AUTHOR, BY T. HARDCASTLE, HIGH-STREET, SHEFFIELD.

P R E F A C E.

IN completing another Volume of the *Floricultural Cabinet*, we cannot forbear commencing our preface by stating, that it is with no ordinary degree of pleasing satisfaction, that we have had, through the year, the assurance that our labours have been approved by our readers. We have received very numerous testimonials by letter to this effect; and the increased demand for the *Floricultural Cabinet*, confirms the same. We assure our readers that our utmost efforts have been directed to secure their approbation. In the selection of articles on Floriculture, our care has been to insert those only that would be either peculiarly interesting or practically useful to the Floriculturist; and to give as many figures each month, of the newest and most showy plants, has been our endeavour as far as practicable. Our attention, in future, will be directed to the same line of conduct.

We are enthusiastically devoted to Floriculture, and our efforts to promote its extension have been richly rewarded—not only in the liberal and increasing patronage we have received, but also in the impulse we have in some degree given to the study of Floriculture, by which, in its practical operations, new tints have been added to the opening flower, fresh fragrance imparted to perfume, and in the results of a judicious combination and culture, we have been surprised and delighted, in many instances, to behold a new creation in the new forms of beauty which have sprung up. Nor do the benefits terminate here, there has been introduced a rich variety of beauty and splendour in many places, where but a few of the most common flowers were heretofore accustomed to grow, and naturalized some of the gayest and most fastidious of Flora's train on what was previously supposed an inhospitable soil. In effecting this desideratum we have been favoured with the very liberal and talented assistance of several correspondents—to whom we are much indebted, and again record our thanks for their liberality. We, therefore, solicit a continuance of their communications to a work already so largely indebted to their favours.

We shall enter upon our editorial labours for another year, encouraged by the success of the past, and animated by the countenance and approval of our numerous friends for the future; and our very best efforts shall be directed to render the *Cabinet*, if possible, a more satisfactory work on Floriculture. The next volume will contain a number of plans of Cutting-Houses, Pits, Frames, &c. We have also several handsome drawings of some splendid Florists' Flowers, which will also appear in due course.

Wortley, Nov. 20th, 1836.

THE
FLORICULTURAL CABINET

JANUARY 1st, 1836.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.—*On the Culture of Orchideous Plants.*
By A COUNTRY FLORIST.

Observing a Query in Vol. III. of the *Cabinet*, page 116, on the culture of Orchideous Plants, I forward, in compliance therewith, the following observations upon this most interesting tribe of plants. They are the result of a very successful practice with upwards of six hundred plants, for eight years. Many of the kinds requiring a very different mode of treatment from others, I deem it best to give you a portion of my remarks for each successive number of the Fourth Volume of the *Cabinet*. An article on the whole tribe, would occupy so much room, that it would necessarily exclude other valuable and interesting observations on many other plants. With a view, however, of complying with the wishes of the Querist, I shall confine my remarks to a few kinds for each month. A few general observations, however, must first be given.

The tribe of plants under notice are peculiarly interesting: the singular form of the flowers, the variation of colour in a single flower, the peculiar mode of growth, and the powerful fragrance of many of them, all combine to give interest to them. In their native country they are not regarded by the natives, and it has been stated by an English gentleman who collected for some time, and to a very great extent, that he only saw one instance of any of the

Orchidææ being noticed by a native, and that was *Oncidium lan-
castinum*. The beauty of its flowers, and powerful fragrance, had
indeed him to remove the plant, and cultivate it near the door, of
his dwelling.

Among the Orchidææ, some are terrestrial, growing like English
Orchidææ; but the principal part of them, and by far the most inte-
resting, are those growing upon trees. Some of this class delight
in a very elevated situation, upon the summit of the highest trees ;
others, upon low bushes, or decayed parts of old trees. They are
not found growing generally through the forests, but are choice in
their place of growth. The trees overhanging a river, is in many
instances found to be a habitation for them, but even under such
an advantage, it is observable that a considerable number of miles
may be pursued and not a single plant be discovered, when a sud-
den turning in the course of the river presents itself, and most
probably rendering the atmosphere at such a situation somewhat
different from the general course of the river, a considerable num-
ber of trees have been found to be literally loaded with the plants.
Although fond of a damp atmosphere, this tribe of plants delight in
a free circulation of air. Collectors in general state, that whether
they are discovered upon old trees in a forest, or by a river, they
are nearly always found on the outskirts, where they can have
occasional exposure to the sun, and a free admission of air.

However numerous may be the plants growing upon a single
tree, not more than five species were ever discovered on the same
tree.

Collectors have informed us, that, like all other plants, the Or-
chidææ require a resting season. In their native country, it is
during the period there termed the "dry season," when the heat
is lower ; and the growing and blooming time, in the wet season
of the year, the heat being much higher, reaching to 90 degrees
or more. This particular should always be attended to by growers
of Orchidææ in this country. The greater the heat, the more
powerful the moisture, and the freer admission of air. To have
the plants to flourish well, these particulars must be obtained ; and
as they are best realised in spring and summer, the most suitable
season of rest is from November to the end of February. During
this period the plants should not stand upon a heated flue, but
upon a trellis placed upon it. The heat of the house should be

required so as to keep it at 60 degrees by night, and to allow it to rise to 68 by day. The plants will not require much water applying at the roots whilst resting, but at the middle of each day the warm flue should be sprinkled with water, to cause a little humidity.

When the resting season is over, many kinds will generally require repotting; I have not confined my practise to that time only, but when during summer a plant seems to want such extension of room, I allow it immediately by repotting, or in some cases keep raising the soil, &c., by piling additional portions successively. In order to secure the plant steady, I fix a strong stick, at the first potting, nearly at the centre of the pot, and by fixing two cross pieces of wood to it, extending crosswise of the inside of the pot, near the rim, this, when the soil, &c. is filled in, becomes quite firm, and is a very useful support to the plant; indeed, in some instances it is quite indispensable.

The most suitable soil for the plants to grow in, is *sandy* peat, not a soddened kind, but having as much stringy roots in it, as when cut into portions of an inch square, each piece will adhere together. In some instances I use decayed wood from trees, mixed with the peat, and a portion of vegetable mould.

In potting, I always give a good quantity of broken pots for drainage, so as to allow the water to pass off quickly. If this is not attended to, the water would become stagnant, the soil soddened, and the plants would most certainly be sickly.

I always use water that is of a tepid temperature, that no check be given from cold. I do not sprinkle the plants over the tops more than three times during a year, and that merely for the purpose of washing off dust; I prefer spunging them over.

When the growing season commences, I raise the temperature of the house from 65 to 72 degrees by night, and from 72 to 95 by day. Instead of syringing over the tops of the plants, I sprinkle the flues twice a day, viz. about ten o'clock in the morning, and two in the afternoon; this supports them during powerful sun, by rendering the air humid. I do not allow the flue to be moist, when the sun has set; for, if the house be then closed in a very damp state, some of the delicate plants would probably be killed by it, and to very few is it beneficial. The exceptions to this rule I shall notice in my remarks on the particular kinds.

The term Orchidæ is often used by persons who scarcely understand the application of it in some particulars. Dr. LINDELL'S *Introduction to Botany* contains the following observations on what are—

"*Parasitical Plants*;—that is to say, such as are either destitute of the power of pumping up their nourishment from the soil, or of elaborating it completely; or as cannot exist without absorbing juices of other vegetables. These are found in all the preceding stations. They may be divided into, first, those which grow on the surface of others, as the *Cuscuta* and *Mistletoe*; and, secondly, intestinal parasites, which are developed in the interior of living plants, and pierce the epidermis to make their appearance outwardly, such as the *Uredo* and *Æcidium*.

"*Epiphytes*, or false Parasites, are such as grow upon either dead or living vegetables, without deriving any nourishment from them. This class, which has often been confounded with the preceding, has two distinctly characterised divisions. The first, which approaches true parasites, comprehends cryptogamous plants, the germs of which, probably carried to their stations by the very act of vegetation, develop themselves at the period when the plant, or that part where they lie, begins to die, then feed upon the substance of the plant during its mortal throes, and fatten upon it after its disease; such are *Nemasporus*, and many *Sphærias*; these are *spurious intestinal parasites*. The second comprehends those vegetables, whether cryptogamic, such as lichens and Musci, or phanerogamous, as *Epidendrums*, which live upon living plants, without deriving any nutriment from them, but absorbing moisture from the surrounding atmosphere; these are superficial false parasites: many of them will grow upon rocks, dead trees, or earth."

Having thus premised with some general observations, I shall continue my remarks of a practical kind, by treating of some of the handsomest kinds in general cultivation.

Stanhopea.—All the species of this genus have not only handsome flowers, but are very fragrant. The flowers are produced upon pendent stems. In order to allow them to hang over the sides of the pots, it is necessary to watch them, and lead the end of the shoot, when visible, to a proper direction; if this is not attended to, the stem will often force itself against the side of the

pot, or into the soil. The best plan with this genus is to treat in the manner I observed at Wentworth, when I visited that place in 1834, viz. :—A pot was filled with square pieces of peat mixed with broken potsherds to the height of the rim, then the squares of peat and pots were piled upwards to the height of several inches above the top of the pot, and the outer piles of peat were secured by means of thin splices of wood being fixed on the pot, and the squares of peat thrust upon them. I observed that as the plants advanced in growth, the peat piles were increased tier upon tier, so that some of the oldest plants were raised near a foot high. I have since adopted the same plan, and found it to answer admirably. As the flower-stem arises from the surface of the roots, it sometimes happens that it will push out, not at the surface, but at the side of the pile of soil; and when no further obstruction is encountered, the flowers will shew themselves very gracefully down the sides. In potting this genus, it is, therefore, necessary, in order that the flower-stems may push unobstructedly, to pot them in the first instance, in an elevated manner as described, and to increase the pile of peat and broken pots as circumstances require.

The plant being thus raised, the soil is more liable to become dry, and additional care is therefore requisite, in properly attending to the watering.

The following kinds are what I possess, and all have bloomed with me :—

1. *Stanhopea eburnea*. The flowers are of a pretty white, spotted and blotched with a crimson-purple. Each flower is about two inches across; they are fragrant. The plant is a native of Rio Janeiro. It merits a place in every collection.

2. *S. grandiflora*. Synonym, *Ceratochilus grandiflora*. (Bot. Cab. 1414.) The flowers are of a beautiful white, from two to three inches across, very handsome and fragrant. The plant is a native of Trinidad, West Indies. It merits a place in every collection.

3. *S. insignis*. Synonym, *Epidendrum grandiflorum*. The flowers are large, four inches across, and very beautiful. The labellum is white, spotted and blotched with dark red. The colour of the other parts of the flower is a sulphur-yellow, spotted with dark red. They are very fragrant. The plant is a native of Trinidad. It merits a place in every collection.

4. *S. aculata*. Synonym, *Ceratochilus oculatus*. (Bot. Cab: 1744.) The flowers are very splendid, nearly five inches across, of a sulphur-yellow colour, beautifully spotted and marked with a deep purple. The plant is a native of Brazil. The magnificence, beauty, and fragrance of the flowers, recommend it to every collection.

These species are readily increased by division of the plant, are easily cultivated, and flower freely when the plants have been established for a year or two. LODDIGES, KNIGHT, LOWE, and some of the Liverpool nurserymen, possess these kinds for sale, and they may be obtained at a reasonable charge. A large and healthy plant is pretty even without a flower, but its magnificence is great when in bloom.

A COUNTRY AMATEUR FLORIST.

(TO BE CONTINUED.)

ARTICLE II.—*On the Culture of Lobelia Cardinalis.*

By EMILY ARMSTRONGE.

In the progress of my remarks on a flower garden, in a former Number of the *Cabinet*, I stated that, with your permission, I would offer a few observations on the cultivation of the *Lobelia Cardinalis*; and I now proceed to redeem my pledge.

Having grown this splendid flower for several years, in various ways, to ascertain the best, and yet at the same time the easiest, manner of cultivation, I send you this short account of my method of treatment; more especially as, after perusing the communications of AN ARDENT AMATEUR and G. H., myself and many of your readers, who possess neither stove, hothouse, nor greenhouse, would be deterred from the cultivation altogether. I have adopted a more simple and successful method than that proposed by Mr. JOHN WINFIELD. If the plants should be left unprotected in the open ground during the winter season, they droop, and finally decay early in the spring season. I have also found, on trial, that though the plants were well mulched around each root during the winter and spring months, with a flower-pot inserted over the crown of the plants in frosty or rainy nights and days, yet they never reached a greater height than one or two feet; and this me-

thod was attended with considerably more trouble than the following simple mode:—After the flower-stalk has been cut down, which takes place about the latter part of October, remove the entire plant, including suckers, into large flower-pots, with a ball of earth attached to each plant, sufficient to fill the pot; place the entire in any vacant sunshiny room without fires; the first week in the March succeeding, take off the offsets from the parent plant, as I am convinced spring is preferable to autumn; in the course of six weeks, remove them into larger pots; this causes them to strike freely, when they are transplanted into the garden border, which should be airy, and yet sufficiently screened from cold winds. This border should have been previously prepared with well-rotted stable manure, to the depth of three inches, well trenched in, over it; leaf mould, light mellow loam, pit sand, and yellow clay, well incorporated six months previously, well sifted and raked, to the height of eight to twelve inches over the trenched dung. The border I choose in which to plant my roots is nearly level; this I prefer for the purpose of retaining a regularity of moisture, which sloping ground does not admit. By the above treatment, I have had strong plants throwing up vigorous flower-stems, to the height of *six feet*, covered with a profusion of flowers. Observe, during dry weather, to water them frequently, as they require a large portion; and check the growth of all weeds around each plant, by repeated turnings of the upper surface.

EMILY ARMSTRONG.

Castlerahan, Ireland, Oct. 13th, 1835.

ARTICLE III.—*On the Culture of the Tulip. No. II.*

By AMATOR FLORUM.

As you seem disposed to think favourably of my last letter, I will now finish the culture of Tulips. I left the Tulip bed planted, hooped over, with a net spread over it, protected from rain. By the end of February, the hoops must be raised on posts 20 inches high above the bordering, and the space from post to post closed up by a piece of net strained tight: this is an economical way of excluding cats and dogs, which often, if they get in, damage the best flowers. But a neater way is to have some wire-work in diamonds, stretched in deal frames about 5 feet long, (any number

according to the length of the bed,) and about 20 inches high, outside measurement. These frames should either be made to overlap each other one inch at the joints, or to fit closely together; they should stand upon the bordering, and at every joint there should be a post 2½ inches wide let down just within the bordering. The frames should have a mortice to receive a staple from the post, which of course need only have one staple if the frames overlap, but two if they only meet; and the staple should stand just far enough out from the frame, to admit a small peg. The end frames should be only 4 feet long, according to the width of the bed, and should have each four staples, two at each end; and the side frame, which meets this at the corner, should have two mortices, to receive the staples. There need only be at the four corners a small post about 8 inches high, just put to steady the corners, and it need have no staple. The frames should all be marked with numbers, and the posts also, that each may be in the same place next year. The frames, with the wire-work, will want one coat of paint every year, and copper wire will be found cheapest in the end. On this fence the hoops, with their net, are to stand.

As soon as the Tulips begin to separate their leaves, any water lodged in their leaves should be drawn out with a water-squirt, if there is any appearance of frost. This should be carefully attended to as they advance in height, and when about 4 inches high, they should be carefully protected from frost by covering them over at night with mats or canvass, to be removed early in the morning, to avoid drawing. If these two points are not attended to, the bloom will be much injured. The spring of 1834 gave abundant proof of this. Continue the protection from frost as the flower-stems advance, and as soon as any begin to shew colour, erect the tent called the Tulip-house. This should be at least 10 feet wide, to include a walk (which should be turfed) 3 feet wide all round the bed, the length according to the bed. Provide some sticks 1½ feet high, painted green, each with a wire hook standing out from it about 3 or 4 inches, to support any flower-stem which may not be able to support itself. Admit all the air you can, and when the flowers begin to open, exclude all sun; if the bed lie east and west, half the covering can be always rolled up, except in rain or high winds; shut up at night. In hot weather, it will prolong the

flowering if the paths are well watered once or even twice a day, but never on any account give the flowers any water, (although they will always rather droop their heads towards evening,) as this would make them run to colour the next year. As the petals fall, break off the seed-vessel, unless seed is wanted; and when most of the flowers are gone, take down the tent and frames, but replace the hoops upon posts to keep off rain. As soon as the tips of the stalk and leaves turn brown, take up the roots, and replace them in the drawers, each in the division in which it stood before; this is easily done if the divisions are numbered, and entered in a book, as before advised.

The first year, three parts of the Tulips will run to colour in fresh ground, but let not the young florist be discouraged. Add no fresh soil to the bed; only trench it up next autumn, and most of the flowers will come better. I have blown Tulips three years on the same soil, without any change at all upon being obliged to make a fresh bed; but this must be left to the judgment. By the fourth year, generally, there should be some renewal, say about one barrow-load to a yard. If a Tulip continues to run, plant it a fortnight later, keep it dry, and generally, if the bottom is clear, this will recover it; but if the bottom is not clear, there are no hopes, and the best flowers will run sometimes. Offsets should be planted (in depth according to their strength) in the beginning of October, or set on damp sand till the old roots are planted. Seed is generally saved from breeders (unbroken flowers), cut off the seed-pod when it begins to open; keep it in a paper bag till the time of sowing, September.

Should you think my correspondence worth having, you will hear more from your constant reader and well-wisher,

AMATOR FLORUM.

[We shall be glad to hear from our Correspondent.—COND.]

ARTICLE IV.—*On the Culture of Maurandia Barclayana, Eccremocarpus scabra, and Verbena pulchella.* By Mr. BRYANT, Gardener to Viscountess DILLON, Bute House, Old Brompton.

I am induced, at the request of your correspondent CATARINA MARIA AND T. (Vol. III. p. 258,) relating to *Maurandia Bar-*
VOL. IV.

clayana, to describe in a few words my method of culture, by which the above plants flower abundantly.

Propagation.—About the last week in August, I select some young cuttings of the *Maurandia* from the old plants in the borders, &c., and insert them in a little white sand, pressed firmly round the stems. They are placed in a cold frame, with a bell-glass over them, and in three weeks they are rooted. I then pot them off into small 60's, well drained, where they remain during winter, taking care to tie them up neatly. About the first week in March, I give them a shift into small 48's; and in April they commence flowering, and continue all the summer, if kept shifted. I cut back six plants last August, which were in small 48's pots, and I could now (the 16th of November) gather more than one hundred flowers. We have got some fancy wire-work, on which the *Maurandia* creeps, and produces a striking appearance. The compost I grow the plant in is yellow loam, with a little leaf-mould and sand. The plant also stands out with me during winter against a south wall, where it flowers freely.

The *Eccremocarpus scaber* grows freely from cuttings, taken off early in spring, and inserted in a little white sand, covered with a bell-glass, and placed so as to have a little bottom heat. Plants raised from cuttings flower much freer than those raised from seed. I find the plant flowers best when planted out on a southern border against trellis-work. It likes a strong rich soil.

Of *Verbena pulchella*, I keep two or three plants in pots through the winter, and early in spring I make two or three dozen cuttings from each plant, and strike them as above described. About the first week in May, I plant a small bed with them on a grass lawn, where it keeps flowering all the summer, and seems to vie, if possible, with *Verbena melindres*.

M. BRYANT.

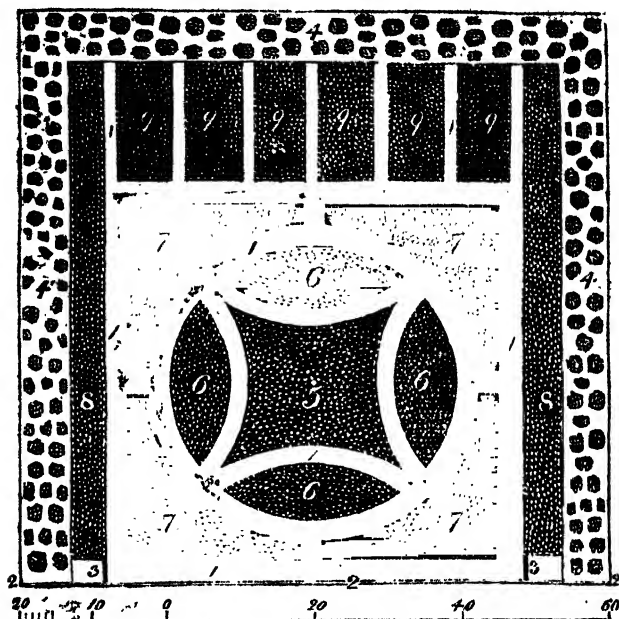
Nov. 16th, 1835.

ARTICLE V.—Plans for two Flower Gardens, having Gravel Walks between the Beds, &c. By EMILY ARMSTRONGE.

In the following plan (*fig. 1.*), 1 denotes gravel walks surrounding the different beds; 2, wall; 3, entrance gates; 4, shrubberies,

with retired walks; 5, centre bed; 6, oval beds; 7, large beds; 8, border beds; 9, exterior beds. The entire may be enclosed by

Fig. 1.



well-clipped hedges of Thorn, Privet, Laurel, or Beech. For edgings, Box is preferable for neatness and cleanliness; but *Gentianellas*, blue and white *Campanulas*, *Evening Primroses*, and *Polyanthuses*, one kind around each bed, would have a very pleasing effect, from the one unbroken line. The young floricultural tyro—as I presume your *Cabinet* is written equally for the improvement of the mere novice in gardening as the more experienced veteran—in so circumscribed a plan, might find it difficult, at the commencement, to select a very moderate variety of annuals and perennials, from the extensive catalogues supplied by your respective valuable correspondents. I shall suggest to such the names of a few varieties, possessing perfume and brilliancy of colours, rejecting all diminutive flowers formerly cultivated: first premising, that flowers cultivated in oval beds have a considerably more pleasing effect, from the contrast of colours, than when one

kind or colour occupy the entire ; masses of colours in borders, or large square beds, on the contrary, would gratify more.

The centre bed, marked 5, would admit, from the size, of both *Tigridia pavonia* and German Asters. By observing the treatment narrated in the June Number, 1834, p. 132, *Tigridia pavonia* will never fail having a splendid appearance.

The oval beds, marked 6, would be well adapted for annuals and perennials of moderate height, or could be filled with varieties of the *Fuchsia* tribe, named by Mr. BARRATT, (to whom the horticultural world is greatly indebted,) or varieties of Rose trees. The few annuals I would most recommend are—

White.—Double-flowered Chinese Larkspur, African Hibiscus (dark centre), Sweet-scented Candy Tuft, Hawkweed, and Lupines.

Purple.—*Oenothera tenella*, Early-flowered Wall Cress, Purple Siberian Larkspur, Shewy *Stenactis*, Sweet Peas (purple), *Calceolaria*, *Hepatica* (double), and *Pentstemons*.

Yellow.—*Mignonette*, *Douglasi limnanthes*, Chilian Monkey-flower, handsome *Calceolaria*, and *Oenothera Drummondii*.

Blue.—Shewy *Insignis*, *Convolvulus minor*, and Spotted-flowered *Calophanes*.

Crimson, Scarlet, and Rose.—*Verbena melindres*, Shewy *Calandrinia*, Pretty *Clarkia*, Sweet Peas, *Malope trifida* and *grandiflora*, *Hepatica* (double), *Chalcedonica Lychnis*, Tufted-flowered *Gilia*, *Geums*, *Laratera*, *Oenothera Lindleyani*, Large Snapdragon, Painted-flowered *Galardia*, and Rose *Campion*;—not omitting Three-coloured *Gilia*, Great-flowered *Collinsia*, varieties of the *Potentillas*, *Lychnideas*, &c.

A selection of the above-named flowers, together with any bulbous flowers, at the option of the cultivator, can be added to the beds marked 7.

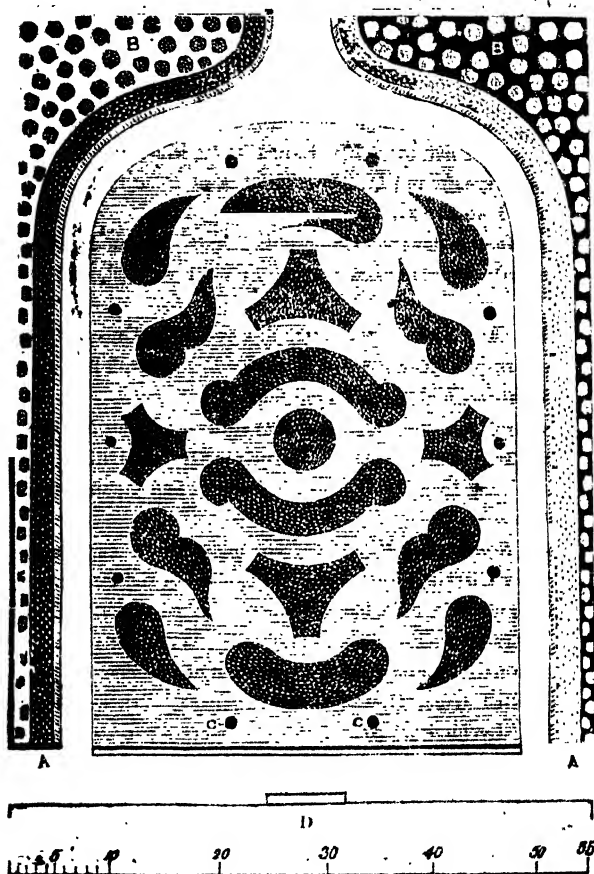
The two borders marked 8, should be devoted to Dahlias and *Lobelia Cardinalis*, one to each.

The six exterior beds, marked 9, should be filled with the most beautiful varieties of the *Picotee*, *Carnation*, and *Pink*.

The subjoined plan (*fig. 2.*) is suited for beds upon a grass lawn, A A being beds for two rows of Dahlias, backed by Holly-oaks. B B, beds of Evergreen and other Shrubs, which shew off the flowers before them to great advantage: these beds can be

made wider than they are sketched, if the cultivator require them; C C, &c., a number of standard Roses. D, either Mansion;

Fig. 2.



Greenhouse, &c. I have given a rather limited scale, but, of course, it may properly be extended to any size suited to the situation it may be designed to occupy;—only being careful to plant those kinds of flowering plants whose size will correspond with that of the bed.

EMILY ARMSTRONG.

Castlerahan, Ireland, 1835.

ARTICLE VI.—*On the Cultivation of the Amaryllis Sarniensis, or Guernsey Lily.* By SNOWDROP.

Notwithstanding GULIELMUS has sent you some observations and directions on the culture of the Guernsey Lily, I am induced to place at your disposal an extract of the mode adopted by Mr. KNIGHT, F.H.S., as recorded in the 6th Volume of the *Horticultural Transactions*. The cultivator will, at all events, have a choice of operation, and if one plan fails, the other may prove successful :—

“ A bulb of the Guernsey Lily, which had flowered in the autumn of 1822, was placed in a stove as soon as its blossoms had withered, in a high temperature, and damp atmosphere. It was planted in very rich compost, and was amply supplied with water, which held manure in solution. Thus circumstanced, the bulb, which was placed in the front of a curvilinear roofed stove, emitted much luxuriant foliage, which continued in a perfectly healthy state till spring. Water was then given in smaller and gradually reduced quantities till the month of May, when the pot in which it grew was removed into the open air. In the beginning of August the plant flowered strongly, and produced several offsets. These, with the exception of one, were removed; and the plant, being treated precisely as in the preceding season, flowered again in August 1824. In the autumn of that year it was again transferred to the stove, and subjected to the same treatment; and in the latter end of the following summer, both bulbs flowered in the same pot with more than ordinary strength, the one flower-stem supporting eighteen, and the other nineteen large blossoms. One of these flowered in the beginning of August, when its blossoms were exposed to the sun and air during the day, and protected by a covering of glass during the night, by which mode of treatment I hoped to obtain seeds; but the experiment was not successful. The blossoms of the other bulb appeared in the latter end of August, and were placed in the same situation in the stove, which the bulb had occupied in the preceding winter; and I by these means obtained three apparently perfect seeds. One of these, the smallest, and seemingly the least perfect, was placed immediately in a pot in a stove, where it produced a plant.”

SNOWDROP.

PART II.

NEW OR RARE PLANTS

WHICH WE HAVE NOTICED SINCE OUR LAST.

1. *Bellis integrifolia*, American Daisy. (*Bot. Mag.* 3455.) Synonym, *Eclipta integrifolia*. F. A. MICHAUX, the celebrated naturalist, who travelled in North America, and published an account of the trees, &c. of that country, first mentions this rare plant as inhabiting the shady hills and banks of the river Tennessee. A general opinion prevailed that no species of our favourite Daisy was to be found in the New World. It appears that when Mr. NUTTALL published his genera of North American plants, he had not then discovered the plant, but since that time it appears he found it in the Arkansas Prairies. Mr. DRUMMOND sent seeds of it to the Glasgow Botanic Garden, where plants have been raised, and bloomed in the open air in June and July of the present year. The plant is annual, and the flower stems rise about six inches high, each stem having one flower. The flowers are about the size of our common Daisy, white with a purple tinge. Class, Syngenesia; Order, Superflua. Natural Order, Compositæ.

2. *Brassia caudata*, Long-tailed, (Flower). (*Bot. Mag.* 3451.) Synonyms, *Malaxis caudata*, *Epidendrum caudatum*, *Helleborine ramosissima*. A native of Jamaica, and now cultivated in many collections of Orchideæ in this country. The plant is profuse in blooming, and continues to flower for a long time. The flowers are produced in spikes, each having from eight to ten large flowers. Sepals have exceedingly long slender tails; they, as well as the petals, are of a pale greenish-yellow colour, marked with fine dark brown spots, producing a very pretty effect. Lip yellowish, marked with red-brown spots. Gynandria Monandria. Orchideæ. *Brassia*, in compliment to Mr. BRASS, a collector of plants in South Africa.

3. *Calliopsis Drummondii*. (*Bot. Mag.*) A hardy annual, growing two feet high, much resembling the (commonly called) *Coreopsis tinctoria*,—the blossom being a little larger, with a less dark centre. Flowers, bright yellow with a dark reddish-brown eye. Syngenesia Polygamia Frustranea. Compositæ. *Calliopsis*, from *Kallos*, pretty, and *ophis*, an eye.

4. *Centrocarpha chrysomelia*, yellow and dark flowered. (*Maund's Bot. Gard.*) Synonym, *Rudbeckia Newmannii*. A perennial border flower from South America, in 1821, growing from two to three feet high, and blooms from July to September. The flowers are showy; yellow with a dark centre (disk), about three inches across. Syngenesia Frustranea. Compositæ. *Centrocarpha*, from *Kentron*, a sharp point, and *karphe*, chaff; alluding to the sharp bristly points of the chaff of the receptacle.

5. *Coccoloba virens*, Green Sea-side Grape. (*Bot. Reg.* 1816.) This plant is cultivated in the hot-house at Sir ABRAHAM HUME's, Wormleybury, Herts. The flowers are produced in racemes about two inches long, of a greenish-yellow colour. The blossoms are small and uninteresting. Octandria Trigynia. Polygonaceæ. *Coccoloba*, from *Kokkos*, a fruit, and *lobos*, a lobe; referring to the lobed seeds.

6. *Elichrysium bicolor*, Two coloured. (*Bot. Reg.* 1814.) A new hardy annual, growing about two feet high. The flowers are of a bright yellow, the underside of the lower petals tinged with red. It is far handsomer than the common yellow *Elichrysium*, an old inhabitant of our flower garden. It is in the possession of Mr. Low, Clapton Nursery, near London. Syngenesia Polyandria. Asteraceæ. *Elichrysium*, meaning a golden spiral. It ought to be spelt *Helichrysium*.

7. *Epidendrum censepsum*, Florida Epidendrum. (*Bot. Mag.* 3457.) The plant is rare in our collections of Orchideæ. It is the only Orchideous parasite yet discovered in the United States. It was sent to the Liverpool Botanic Garden, by Mr. GORDON, from North Carolina, where it had been found growing upon the branch of a *Magnolia grandiflora*. The flowers are small, not very interesting, of a greenish-yellow colour. Gynandria Monandria. Orchideæ. Epidendrum, from *Epi*, upon, and *dendron*, a tree referring to the habitat of the plant.

8. *Eulophia lurida*. (*Bot. Reg.* 1821.) This Orchideous plant was sent into this country from Sierra Leone, where it grows in abundance upon the trunks of trees. It is cultivated by Messrs. LODDIGES, in whose collection it blooms nearly the whole year. The flowers are small, numerous, and produced on a branching scape.

9. *Galatella punctata*, Dotted leaved. (*Bot. Reg.* 1818.) Synonyms, *G. intermedia*, *Aster punctatus*, *A. desertorum*. A native of Hungary, consequently quite hardy in this country. It is an herbaceous plant, growing two feet high, producing numerous aster like flowers, of a purplish blue colour, in a corymbose head. The plant forms a compact bush by its numerous stems. Syngenesia Polygamia Frustranea. Asteraceæ.

10. *Lupinus bimaculatus*, Twin-spotted Lupine. (*Brit. Flow. Gard.*) A native of Mexico, a hardy perennial plant, cultivated by Dr. NEILL, at Cannon Mills, near Edinburgh. The flowers are blue marked, with a yellow spot. The flower stems rise about a foot high, each producing a terminal raceme of flowers about two inches long. Diadelphica Decandria. Leguminosæ.

11. *Macradenia triandria*, Triandrous long-gland. (*Bot. Reg.* 1815.) An Orchideous plant, from Surinam, and cultivated in the collection of the London Horticultural Society. The flowers are small, produced in a pendent raceme, of from six to eight upon each. Each flower is of a blood-colour in the inside, and greenish outside. Gynandria Monandria. Orchideæ. Macradenia, from *makros*, long, and *adnæ*, a gland; referring to the long caudicula of the pollen masses.

12. *Ochranthe arguta*, Fine-toothed leaved. (*Bot. Reg.* 1819.) This greenhouse plant was once cultivated in the Garden of the London Horticultural Society, where it had been received from China, its native country. It blossomed once and then died. It does not appear to have been increased, and is probably lost to this country for the present. The foliage is large, of a fine green. The flowers are produced in a terminal thyrse, small, white. Pentandria Trigynia. Hypericaceæ. Anomala. Ochranthe, from *ochros*, pale, and *anthos*, flower.

13. *Oxalis piottæ*. This very showy flowering species, it is said, is a native of the Cape of Good Hope, and is cultivated in the garden of Mrs. MARRYATT, Wimbledon. This plant produces a profusion of flowers, rising about two inches high. Each flower is about an inch across, and of a fine salmon colour, having a rosy-red circle near the centre. This plant is a valuable acquisition; it is a frame perennial, blooming from June to August. It will flourish well in the open border in summer; and producing blossoms so large and in so copious a manner, renders it a most lovely object. Decandria Pentagynia. Oxalidaceæ.

14. *Phacelia congesta*, Cluster-flowered. (*Bot. Mag.* 3452.) This very neat flowering plant was sent from Texas, by the late Mr. DRUMMOND, and has bloomed in the Glasgow Botanic Garden. It is a greenhouse annual of considerable beauty and gracefulness. The flowers are produced in corymbose racemes, of a bright purple-blue colour, each about the size of what is commonly called Forget-me-Not. We think it will do equally well in the open borders, in summer, in warm situations, and will be a valuable acquisition to the flower garden. Pentandria Monogynia. Hydrophyllæ. Phacelia, from *Phakelos*, a bundle; alluding to the crowded quantity of flowers.

15. *Rhododendron maximum hybridum*, Laurel-leaved. (*Bot. Mag.* 3454.) Cultivated in the Glasgow Botanic Garden. The leaves are larger than the original species, and the flowers smaller; but the flowers are of a pretty blush tinge.

16. *Rhododendron pulcherrimum*, The lovely Rhododendron. (*Bot. Reg.*) This very handsome flowering plant is an hybrid, between *R. arboreum* and *R. caucasicum*. It is quite hardy, and a profuse bloomer. The flowers are of a fine rose colour, whitish towards the centre, slightly spotted, and very handsome. Another kind is in cultivation, viz. *R. Nobleanum*, whose flowers are of a deep rose colour, and very handsome.

17. *Rubus Nuthanus*, Nutka Bramble. The appearance of the plant is very like the Virginian Raspberry of our shrubberies, but the flowers in the present species are white. It is a native of North America; a hardy shrub. Icosandria Polygynia. Rosaceæ.

18. *Silenia regia*, Scarlet Catch-fly. (*Brit. Flow. Gard.*) The most splendid of the genus. The plant is a hardy perennial, growing four feet high, and producing numerous flowers in a paniced head. The flowers are about an inch across, of a fine rich scarlet colour. The plant merits a place in every flower garden. It is cultivated in the garden of D. FALCONER, Esq., Carlisle, Scotland. Decandria Trigynia. Caryophyllææ.

19. *Veltheimia glauca*, var. red and purple-flowered. (*Bot. Mag.* 3456.) Synonym, *Alctris glauca*. A native of the Cape of Good Hope, and cultivated in the Glasgow Botanic Garden. The flowers are produced in a dense raceme of a reddish purple colour, marked with paler spots, and hanging pendent. Hexandria Monogynia. Liliacææ. Veltheimia, in compliment to F. A. DE VETTER, a German.

NEW METHOD OF DRYING PLANTS.—DR. HUNEFIELD recommends a new method of drying plants, by covering them first with the powder of lycopodium, and then placing them in a vessel containing chloride of calcium. By this method, the colour and flexibility are preserved. On the 29th of July, 1834, the thermometer being at 53½°, Dr. GÖPPERT, of Breslaw, placed in a 24 ounce glass two leaves of the *Hyacinth*, and a specimen of the *Fumaria officinalis*, with two ounces of muriate of lime, in such a manner that the plants were not in contact with the salt. On the following day, the leaves began to dry, and on the 3rd of August, although not dead, the Hyacinth leaves were capable of being reduced to a fine powder. Even fleshy plants, as the *Sedum rupestre*, are so much dried in seven days, that they may be pulverised. The lycopodium powder prevents the sap from escaping.—*Records of Science, from Maund's Pat. Gard.*

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON PEAT SOIL.—Can you inform me, through the medium of the *Cabinet*, the best plan to obtain peat in large quantities, convenient for water carriage?
Bristol, 1835. A CONSTANT READER.

ON THE MIMULUS.—I should feel particularly obliged if any of your readers would condescend to answer S. P.'s query, as I am quite as anxious to have an answer as he is. Perhaps Mr. APPLEBY or Mr. ASHFORD will be so obliging as to give us the desired information; if either of them will have the kindness to do so, they will much oblige

A LAWYER'S CLERK.

ON A WHITE CALCEOLARIA, &c.—In your *Floricultural Cabinet* for August last, you promise a drawing of Mr. BARRATT's pure White Shrubby Calceolaria. Being a collector and admirer of that tribe, I am desirous of seeing the drawing. I have taken in your work since its commencement, and have recommended it to many of my friends. I reside some distance from London, and being a member of the London Horticultural Society, I should be much gratified if you would insert monthly a report of the flowers exhibited at the meetings in Regent Street, with the names of the individuals whose produce they are, in the way of LONDON'S Magazine, excluding the fruits. Such an arrangement would add much to the interest of your work, and is in strict accordance with its principle.

A FRIEND TO THE FLORICULTURAL CABINET.

[We have applied for the account, and, if we succeed in obtaining it, it shall regularly be inserted.—CONDUCTOR.]

ON A LIST OF FLOWERS, &c.—Many of the readers of the *Floricultural Cabinet* will thank the Editor to favour them with a monthly list of *Flowers* that will bloom in every month—that in every month there may be some flowers in full bloom. To give the height and colour of each flower;—to give also a description of the cultivation suitable to each flower;—in what way to assort the flowers in the beds, so as to produce the most pleasing appearance in contrast of colour and of height;—to give forms of the beds to suit a small flower garden;—also to add hints how the cottager may ornament his cottage garden every month with a few of the less expensive flowers. Such an article or paper in every monthly number of the *Floricultural Cabinet*, would much increase the value of it to many readers.

London, 1835.

[We shall be obliged by the contributions of any of our readers to enable us to meet the wishes of our correspondent.—CONDUCTOR.]

ON A LIST AND PRICES OF CAMELLIAS.—Having been a subscriber to your very useful *Cabinet* from its commencement, I take the liberty of asking you to furnish me, as well as some others who are admirers of the tribe of Camellias, where we may be supplied with the different varieties upon reasonable terms. Suppose I take a stock of fifty of the best and most popular kinds, I conceive I ought to obtain them at a considerably less rate of expense than by buying only three, or four, or six. Perhaps by inserting this communication in your next number, some of your numerous readers will be at the trouble of giving a list, with the price, *not* individually but *collectively*. If there are objections to this public mode of trafficking, I shall be most happy to meet their feelings, on your stating as much in your periodical. I would have addressed you earlier (being now the 15th), but

have been engaged in planting my Tulips this week and the preceding one; consequently have had but little thought of any thing else. I shall give you my method of cataloguing and planting, which I conceive (barring conceits) to be preferable to any I have yet seen or heard of.—It is applicable to a stock of 100 or 5000—to the *Ranunculus* as well as the Tulip—combining facility and simplicity. It is difficult to offer any thing new and good in the way of knowledge, where on all subjects the *Floricultural*, by its many correspondents, has presented to the world so much able and genuine information on composts, method of treatment, &c. &c.; nor am I, perhaps, warranted to communicate much on this head. However, to beguile time, and hear the various modes of treatment by others, perhaps some of your readers would like to know my way of managing Auriculas. Although this year has been so wet and damp, I have only lost one plant out of a hundred pots, and my stock is looking capital.

Nov 15th, 1835.

AN OLD FLORIST.

[We shall be much obliged by the promised favour.—CONDUCTOR]

ON THE WHITE MEALY INSECT, OR PINE BUG.—I should be greatly obliged by you, or any of your Correspondents, informing me the best method of destroying the White Mealy Insect, or Pine Bug, which attacks Stove Plants as well as Pine Plants.

Banbury, Oct. 1835.

A REGULAR SUBSCRIBER.

ON A STAND FOR SHOWING PANSIES.—I should be greatly obliged to you, or any of your Correspondents, to inform me of the best method of showing Pansies at an Horticultural Show, so as to make the flowers show to advantage. I have seen them shown in a great many different plans, but I do not like any of them: I should like to see the plan of one figured in the *Cabinet*, so as to have one made by. I hope to see an early answer to the above.

J. K.

ON CARRYING DAHLIA BLOOMS.—Could you, or any of your Correspondents, inform me of the best method of carrying Dahlia Blooms to a distance, for the flowers to keep fresh, and not be injured much? I have been put to great inconvenience this season by my flowers being spoiled in carriage to a distance.

J. K.

ON SUPERIOR PINKS.—Mr. J. SMITH, of Faversham, Kent, (Vol. III. p. 235), should grow such Pinks as Bows' Swallow, P. L., Faulkner's Duchess of St. Alban's, P. L., Bows' Queen, B. W., and Faulkner's Mars, R. L., &c., if he is desirous of having large and superior hints. They are well laced, and have rose-shaped leaves. When properly grown, they never burst. I never saw a South of England raised Pink worth growing, being generally *busters*, and with the centre full of small leaves, also indifferently laced. Perhaps Mr. SMITH, or some other Southern grower of Pinks, will inform me why such Pinks are encouraged.

Lancaster, 1835.

T. CONNELLY, JUN.

ANSWER.

ON DISSECTING LEAVES, &c.—In compliance with the wishes of A Subscriber and Admirer of *Floricultural Botany*, I observe that I have dissected leaves, calyxes, and capsules of flowers, by the following method:—"Cherries, Pear, Poplar, Ivy, Holly or Maple leaves to be gathered in June or July, when the young leaves are at their full growth; put them in an earthen pan, full of rain-water, as it wastes fill it up, but do not empty out any of the water. Some of the leaves will be ready to dissect in a month, and some not in less than two. When the external membranes begin to separate, then is the time to begin the operation. The leaf must be put in a flat white plate, with clean water: squeeze the leaf gently with the finger and it will open on one side, the green juice will press out; then the two outward skins must be stripped off, first in the middle and along the sides, where they closely adhere, and if an opening is made, they will easily come

off: then wash the skeleton in clean water, and put it between the leaves of a book to dry. Pear and Holly have a double set of fibres, that must be separated with circumspection; one set of fibres is more perfect than the other." I must observe that I was not able to procure *rain-water* for the greater part of the leaves I have dissected, and that I succeeded without. Box leaves I found to require to remain several months in the water. Some leaves of the Spanish Chesnut I once had for more than a year in water, and then was obliged to throw them away unchanged: I have not since been able to try them again.—I have now a Query to propose. I have succeeded perfectly in dissecting the leaves and the floral leaves of the Lime Tree, but the skeleton of the Lime Tree leaves remains green, and no washing will bleach it. Perhaps some reader of the *Cabinet* will have the kindness to inform me how to bleach them, without injuring the fibre of the skeleton. The above is a dirty, and not a very sweet job, but the admirable beauty of the skeletons, in my opinion, fully compensates for the trouble.

Beds., October 13th, 1835.

A PRACTICAL LADY GARDENER.

REMARKS.

ON THE PROPER PRONUNCIATION OF DAHLIA.—As it is your intention, in the forthcoming No. of the *Cabinet*, or its Supplement, especially to notice the Dahlia; allow me to take this fitting opportunity of interceding for the proper pronunciation of the word.—It was called after a Swedish Botanist, Professor DAHL, of Upsala. Now as the *ah* in his name is pronounced, both in Switzerland and all over the world, *broad*, as in the English word *ah*, and as the word Dahlia differs only in having the termination *ia* added, nothing but ignorant conceit could have inflicted on it the pronunciation, as if written *Daylia*;—it is at best but a piece of affected Cockneyism.—Hoping that this brief philippic may be effectual in saving my own ears and that of many others from such nincing,—I am, &c.

F. R. HORNER.

ON CAPE BULBS, &c.—JOHN YOUNG, nurseryman, Taunton, takes the liberty of saying to the correspondent of the *Floricultural Cabinet*, Vol. III., p. 257, that for several years past he has been paying considerable attention to the culture of Cape Bulbs, and will be glad to communicate with any one of similar pursuits, whether for the purpose of exchange or sale, or interchange of sentiments, on the best mode of treating this interesting tribe, which he thinks are too much neglected, believing, as he does, that most of the varieties of *Ixia* will do as well, or perhaps better, in the open ground, not even protected by a wall, than in a frame or greenhouse. J. Y. has had a bed of *Ixias* in this situation for about four years, and with no protection for the last two; the bed is well drained: the compact, sandy peat. J. Y.'s collection at present consists of about 20 varieties of *Ixia* (proper), 6 of *Tritonia*, 6 of *Sparaxis*, 6 of *Babiana*, 2 of *Trichonema*, 3 of *Vioussauxia*, 9 of *Watsonia*, 14 of *Oxalis*, and 30 of *Gladiolus*, together with some varieties received from the Cape last year without names, but of which those that have flowered are good, and not common. J. Y. also has *Calochortus venustus*, *C. splendens*, *C. luteus*, *Calliprora lutea*, *Cyclobolus alba*, *Tritelem laxa*, *Brodicea* (3 varieties), and a few of the scarcer varieties of Cape Bulbs not enumerated in the above list.

Taunton Nursery, 11 mo. 17, 1835.

ON PICOTEES.—From the doubts expressed by your Correspondents, Mr. REVELL, &c., I was also led to doubt the dimensions of the Pinks mentioned by INNOVATOR; but permit me to state, that this year I flowered a Mulberry-coloured Picotee, twelve inches in circumference; also a White Picotee, slightly tinged with purple on each petal, eleven inches in circumference; both very double. Perhaps this statement may contribute to remove the doubts of Mr. REVELL, Mr. Wigg, and R. M. I shall not occupy your pages, at present, by detailing my mode of cultivation, there having been so many and various remarks already made by your esteemed Correspondents, INNOVATOR, &c.

EMILY ARMSTRONG.

Castlerahan, Ireland, 1835.

FLORICULTURAL EXHIBITIONS.

WARWICKSHIRE FLORAL AND HORTICULTURAL SOCIETY.

The following Prizes were awarded at the Fifth Exhibition of the Warwickshire Floral and Horticultural Society, September 17th, 1835:—

DAHLIAS.—*Best*.—Countess of Liverpool, Sir Charles Throckmorton.

Selfs.—1, Widnall's Apollo, Forfeited, Mr. Kendall; 2, Lord Derby, Mr. Adkins; 3, Yellow Turban, J. Willmore, Esq.; 4, Harding's Lilac Perfection, Mr. Adkins; 5, Seedling, J. Willmore, Esq.; 6, Lord Liverpool, Mr. Kendall; 7, Metropolitan Perfection, Ditto.

Striped or Spotted.—1, Picta formosissima, Mr. Kendall; 2, Queen of Dahlias, Mr. Burman; 3, Commander-in-Chief, Mr. Kendall; 4, Desdemona, Ditto; 5, Widnall's King, Mr. Adkins; 6, Seale's Invincible, Ditto; 7, Mrs. General Grosvenor, Mr. Kendall.

Seedling.—Best, J. Willmore, Esq.

Scarlet and ruby.—1, Countess of Liverpool, Sir C. Throckmorton; 2, Widnall's Apollo, Mr. Kendall; 3, Master Walter, J. Willmore, Esq.; 4, Newsal's Victory, Mr. Kendall; 5, Widnall's Remus, Ditto; 6, Widnall's Rising Sun, Ditto; 7, Lass of Richmond Hill, Ditto; 8, Scarlet Perfection, Messrs. J. Pope and Sons.

Crimson and Purple.—1, Widnall's Grants, Sir C. Throckmorton; 2, Lord Liverpool, Mr. Kendall; 3, Langley's Purple, Sir C. Throckmorton; 4, Lord Derby, Mr. D. Houghton; 5, Colville's Perfection, Messrs. J. Pope and Sons; 6, Muntz, Mr. Kendall; 7, Seedling, Sir C. Throckmorton; 8, Man of Kent, Mr. J. Moore.

Puce Maroon and Dark Maroon.—1, Lord Derby, Mr. Adkins; 2, Metropolitan Perfecta, Mr. Kendall; 3, Othello, Mr. Tapp; 4, Vulcan, Mr. Cowdry; 5, Dawson's Victory, Dr. Cave Brown; 6, Lord Brougham, J. Willmore, Esq.; 7, Hall's Mogul, Mr. Tapp; 8, Sir Walter, Scott, Dr. Cave Brown; 9, Suttonia Superb, J. Willmore, Esq.; 10, Negro Boy, Ditto.

White Blush, Rose and Lilac.—1, Lilac Perfection, Mr. Adkins; 2, Lady Grenville, Sir C. Throckmorton; 3, King of Whites, Mr. Tapp; 4, Leucanthera, J. Willmore, Esq.; 5, Springfield Rival, Mr. D. Houghton; 6, British Queen, Mr. Kendall; 7, Superb Lilac, Mr. S. Yates; 8, Calypso, Mr. Kendall.

Sulphur, Yellow, and Buff.—1, Yellow Turban, J. Willmore, Esq.; 2, Seedling, Mr. D. Houghton; 3, King of Yellows, Ditto; 4, Queen of Yellows, Mr. Burman; 5, Hortensis, Sir C. Throckmorton; 6, Syren, Mr. Meyrick.

Globes.—1, Crimson, Mr. J. Moore; 2, Rugby Beauty, Mr. Meyrick; 3, Orange, Messrs. J. Pope and Sons.

Anemoneflora.—1, spectabile elegans, Mr. S. Yates; 2, Painted Lady, Sir C. Throckmorton; 3, Crimson, Mr. J. Moore; 4, spectabile, Messrs. J. Pope and Sons; 5, purpurea, Sir C. Throckmorton.

Striped double.—1, Picta formosissima, Mr. Kendall; 2, Commander-in-Chief, Ditto; 3, Seale's Invincible, Mr. Adkins; 4, Black Prince, J. Willmore, Esq.; 5, General Grosvenor, Mr. Kendall; 6, French Rival, Mr. Adkins.

Spotted double.—1, Queen of Dahlias, Mr. Burman; 2, Brown's Desdemona, Mr. Kendall; 3, Widnall's King, Mr. Adkins; 4, Beauty of Cambridge, Ditto; 5, Duchess of Buckleugh, Mr. Burman.

Seedlings.—1, Drusilla, Mr. D. Houghton; 2, J. Willmore, Esq.; 3, Sir C. Throckmorton; 4, Mr. D. Houghton; 5, Sir C. Throckmorton; 6, Ditto; 7, Mr. Adkins; 8, Sir C. Throckmorton.

SINGLE DAHLIAS.—1, Painted Lady, Messrs. J. Pope and Sons; 2, Paragon, Mr. Cowdry; 3, Star of Bethlehem.

PLANTS OF COMMERCE.—1, *Gossipium arboreum* and *Zinnia officinarum*, Mr. J. Horton.

ERICAS.—1, *Hartnellii*, J. Willmore, Esq.; 2, *Irbiana*, Ditto; 3, *cerinthoides (nova)* Ditto; 4, *Altonia*, Ditto.

STOVE PLANTS.—1, *Musa coccinea*, Mr. C. Ratheram; 2, *Euphorbia calabra*, J. Willmore, Esq.; 3, *Francisca Hopeana*, Messrs. J. Pope and Sons.

GREENHOUSE PLANTS.—1, *Nierembergia intermedia*, Mr. C. Sharp; 2, *Cineraria hybrida*, Mr. J. Moore; 3, *Chironia frutescens*, Mr. D. Houghton; 4, *Oxalis Bowellii*, Mr. J. Moore; 5, *Anagallis Willmoreana*, Ditto; 6, *Nerium splendens*, Mr. D. Houghton; 7, *Fuchsia globosa*, Mr. Kendall; 8, *Fuchsia mutabilis*, Mr. D. Houghton.

ORCHIDEOUS PLANTS.—1, *Catasetum tridentatum* (var.), 2, *Epidendrum fragrans*; 3, *Epidendrum ciliare*, J. Willmore, Esq.

HARDY FRAME PLANTS.—*Nuttallia grandiflora*, Messrs. J. Pope and Sons; 2, *Lobelia prophecia*, J. Willmore, Esq.; 3, *Erythroluna conspicua*, Messrs. J. Pope and Sons; 4, *Lobelia unidentata*, Mr. J. Moore.

HARDY ANNUALS.—1, *Xeranthemum lucidum album*; 3, *Coreopsis splendens*; 3, unique French marigold, Mr. Adkins; 4, African marigold, Mr. Burman.

HERBACEOUS PLANTS.—1, *Amaryllis belladonna*, J. Willmore, Esq.; 2, *Potentilla Hopwoodiana*, Mr. J. Moore; 3, *Yucca filamentosa*, J. Willmore, Esq.

COCKSCOMBS.—1, Mr. Adkins; 2, James Taylor, Esq.

TENDER ANNUALS.—1, *Thunbergia alata*, Mr. J. Horton; 2, *Globe amaranthus*, Mr. C. Ratheram; 3, white egg plant, Mr. J. Horton.

CALCEOLARIAS.—1, *dilectum*; 2, *parthenura*; 3, Lord Shrewsbury, J. Willmore, Esq.

GROUPS OF FLOWERS.—1, Mr. C. Ratheram; 2, Mr. Charles Walthow.

EXTRA PRIZES.—Design in flower, over the entrance, Mr. Kendall; group of flowers, &c., Mr. Crowder; Ditto, Mr. James Tonkins; group of pansies, Nos. 1 and 2, Mr. Kendall; China asters, Mr. Tapp; Ditto, Mr. Adkins; globe amaranthus, Mr. C. Ratheram.

DONCASTER HORTICULTURAL SOCIETY.

The fourth meeting of the Doncaster Horticultural Society for the season, took place on Wednesday, the 29th of July, in the New Concert-room, High-street. Although it has been generally admitted,—and not without sufficient reason,—that the number of meetings this year has been far too numerous, the attendance on the present occasion was never excelled in point of respectability,—an attendance which embraced nearly all the families of the gentry in the neighbourhood, particularly the female portions of them; and the exhibition, enlivened by the performances of the band, appeared to give the highest degree of satisfaction. The show of Carnations and Dahlias, considering the extremely dry state of the weather, was numerous and beautiful, and the Geraniums were particularly attractive. The judges were, Mr. Smith, Botanic Garden, Hull; Mr. Belton, Nostell Priory; and Mr. Dobb, Rotherham.

PLANTS.—*Stove*—1, *Musa coccinea*, Messrs. Crowder; 2, *Cyrtanthus purpureus*, Messrs. Crowder; 3, *Hamantthus undulatus*, Messrs. Crowder; 4, *Begonia cordata*, Mr. Appleby.

Greenhouse.—1, *Nerium splendens*, F. J. Woodyear, Esq. (C. Stephens, gardener); 2, *Nierembergia filicalus*, H. Cooke, Esq. (J. Stephens, gardener); 3, *Nerium album*, Messrs. Crowder; 4, *Oxalis Bowellii*, Mrs. Elmsall, (J. Blyton, gardener.)

Exotic Climber.—*Tropæolum pentaphyllum*, H. Cooke, Esq.; 2, *Jasminum floribus plenus*, Mrs. Elmsall.

White Pelargonium.—Barratti, H. Cooke, Esq.; *Dark Red*, Lord Combermere, Mr. Robinson, gardener to T. Walker, Esq.; *Crimson*, Amadium, Mr. Robinson; *Pink*, Flora McDonald, H. Cooke, Esq.; *Crimson Purple*, Master Walter, Messrs. Crowder; *Lilac*, H. Cooke, Esq.; *Blush*, Blandum, H. Cooke, Esq.; *Oak leaved*, Moorcanum, H. Cooke, Esq.; *Scarlet*, Bath Scarlet, H. Cooke, Esq.; *Clouded*, Yeatmanianum grandiflorum, Mr. Robinson.

Ericus.—1, Mr. Appleby; 2, 3, 4, Mr. Hall.

Fuchsias.—1, *Globosa*, Mr. Robinson; 2, *Longiflora*, Mr. Milan.

Mimuluses.—*Bitrons*, Mr. J. L. Crowther; 2, Mr. Hall.

China Roses.—1, *Yellow Noisette*, Messrs. Crowder; 2, Mr. Milan; 3, *Smith's Noisette*, Rev. I. Hobson. *Hardy Creeper*.—1, Messrs. Crowder; 2, Mr. Appleby; 3, *Sollya heterophylla*, Hon. Mrs. Cochrane, (J. Cooper, gardener); 4, *Tropæolum majus*, Hon. Mrs. Cochrane. *Hardy Shrubs*, 1, *Yucca gloriosa*, Messrs. Crowder; 2, *Hydrangea quercifolia*, Mr. Hall.

Hardy Herbaceous.—1, *Potentilla Hopwoodiana*, Messrs. Crowder; 2, Mrs. Bulmer.

Herbaceous Calceolaria.—1, *Speciosa*, Messrs. Crowder; 2, *Ochroleuca maculata*, Mr. Robinson; *Shrubby Ditto*, 1, *Juno*, Mr. Robinson; 2, G. C. Walker, Esq.

Six Hollyhocks.—1, Mr. Jackson; 2, Mr. Milan.

Twelve Pansies.—1, Mr. Jackson; 2, Rev. Dr. Sharpe. *Six Ditto*, 1, Hon. Mrs. Cochrane; 2, Mr. Crowcroft.

British Plants.—1, *Gentiana Pneumonanthe*, Mr. J. L. Crowther; 2, *Utricularia vulgaris*, Mr. Hopkinson; 3, *Drosera anglica*, Mr. J. L. Crowther.

Best Collection of British Plants.—Mr. J. L. Crowther, 108 species.

Tender Bouquet.—Mr. Hopkinson. *Hardy Ditto*, 1, Mr. Hopkinson; 2, Rev. Dr. Milnor. *Tender or Hardy Ditto*, Col. Fullerton, (J. Flintham, gardener). *Annual*, 1, Hon. Mrs. Cochrane; 2, *Lady Cooke*; 3, Mr. Hall.

Scarlet Stock.—Mrs. Elmsall. *Purple Ditto*, Mrs. Elmsall; *White Ditto*, Mrs. Elmsall.

CARNATIONS.—*Best Pan of Seven*.—Pike's Eminent, Rowbottom's Victory, Unknown, Will Stukely, Queen Adelaide, Unknown, Mr. Thorpe.

Scarlet Bizarre.—1, Major Ripon, Mr. Ripon; 2, Mr. W. L. Crowther.

Pink Bizarre.—1, Mr. Foulstone; 2, H. D. Cooke, Esq.

Scarlet Flake.—1, Leighton's Atlas, Col. Fullerton; 2, *Madame Mora*, Col. Fullerton.

Rose Flake.—Queen Adelaide, Mr. Thorpe; 2, Mrs. Branson, (T. Woodhead, gardener).

Purple Flake.—1, Mrs. Branson; 2, Hon. Mrs. Cochrane.

Red Picotee.—1, Will Stukely, Mr. Thorpe; 2, Martin's Prince George, Mr. Jackson.

Purple Picotee.—1, Pollett's Triumph, Col. Fullerton; 2, Mr. W. L. Crowther.

Yellow Picotee.—1, Seedling, M. Tasburgh, Esq. (— Wood, gardener); 2, Seedling, M. Tasburgh, Esq.

Self.—1, Seedling, M. Tasburgh, Esq.; 2, Seedling, Mr. Jackson.

DAHLIAS.—*Best Pan of Six*.—Lord Liverpool, Agrippina, Queen of Dahlias, Zebra, Queen of Belgium, Criterion, Messrs. Crowder.

Scarlet.—Countess of Liverpool, Mr. Jackson; *White*, King of Whites, Dr. Bower; *Rose*, Queen of Roses, Mrs. Bulmer; *Striped*, Sea's Invincible, Mr. Appleby; *Dark*, Lady Fitzharris, Mr. Milan; *Purple*, *Purpurea perfecta*, Mr. Appleby; *Orange*, Formosissima, Dr. Bower; *Shaded*, Belladonna, Mrs. Branson; *Yellow*, Queen of Yellows, Dr. Bower; *Crimson*, Barratt's Susanna, Mr. Milan; *Lilac*, Mr. Foulstone; *Globe*, M. Tasburgh, Esq.; *Anemone*, H. Cooke, Esq.; *Single*, Lady Cooke, (H. Seaton, gardener); *Tipped*, Agrippina, Mr. Appleby; *Red*, Mrs. Bulmer,

SHOW OF CARNATIONS NEAR WOLVERHAMPTON.

At a Meeting held at Ounsdale, Wombourn, near Wolverhampton, on the 27th of July last, the following prizes for Carnations were adjudged:—

Premier Prize—Duke of Devonshire, Mr. Abner Bullock.

Scarlet Bizarres.—1, Duke of Devonshire, Mr. Partridge; 2, Seedling, Mr. Aston; 3, Seedling, Mr. Bullock; 4, Kinfare Hero, Mr. Aston; 5, Wild's Perfection, Mr. Walford; 6, Seedling, Mr. Bullock.

Crimson Bizarres.—1, Seedling, Mr. Bullock; 2, Spitfire, Mr. Nicklin; 3, Seedling, Mr. Walford; 4, ditto, Mr. Aston; 5, ditto, Mr. Walford; 6, ditto, Mr. Aston.

Scarlet Flakes.—1, Bishop of Gloucester, Mr. Elliott; 2, Seedling, Mr. Bullock; 3, Stanley's Union, Mr. Richards; 4, Rob Roy, Mr. Downing; 5, Lydia, Mr. Jones; 6, Fair Ellen, Mr. Aston.

Purple Flakes.—1, Bellerophon, Mr. Aston; 2, Squire Clarke, Mr. Walford; 3, Cleopatra, Mr. Richards; 4, Turner's Princess, Mr. Aston; 5, Seedling, Mr. Partridge; 6, Rosamond, Mr. Bullock.

Pink Flakes.—1, Luly Grey, Mr. Walford; 2, Sir George Crewe, ditto; 3, Seedling, Mr. Aston; 4, Howe's Princess, ditto; 5, Seedling, Mr. Elliott; 6, Lucy Maria, Mr. Bullock.

Red Picotees.—1, Vulcan, Mr. W. Wallace; 2, Sir Thomas, Mr. Walford; 3, Miss Bevan, Mr. Downing; 4, Prince George, Mr. Partridge; 5, Elliott, Mr. Elliott; 6, Bird's William the Fourth, Mr. Walford.

Purple Picotees.—1, Isabella, Mr. Walford; 2, Miss Emma, Mr. Wallace; 3, Beauty of Northampton, Mr. Walford; 4, Hector, Mr. Aston; 5, Moonraker, Mr. Wallace; 6, Drucella, Mr. Aston.

REFERENCE TO THE EMBELLISHMENTS.

1. *Chrysanthemum indicum*, variety.—*The Sulphur Yellow*. This kind is also called Early Yellow, Sulphurea, Sulphurea Superba, Brimstone, and Straw coloured. It is one of the most graceful and handsome flowering kinds, and merits a place in every collection. It comes into bloom at an early period, before all others, excepting the quilled white. The flowers have a very strong Chamomile scent. The leaves are very deeply indented, having the lobes very distinct from each other, and the serratures are sharp pointed. This kind was introduced into this country from China by the late Thomas Evans, Esq., of Stepney, having been brought over for him by Captain Henry Wilson.

2. *C. indicum*, var. *Wheeler's Sanguinea*.

3. *C. indicum*, var. *Wheeler's Expanded Crimson*. Both the latter kinds are hybrids, recently raised in this country. They are a most valuable addition to this pleasing tribe of autumnal flowering plants. All the kinds may be readily obtained at most of the public nursery establishments, at a very moderate charge. Being of easy culture, the whole tribe recommend themselves to every lover of flowers. We cultivate about sixty kinds, and the varieties in colour and form of flowers produce a most striking and beautiful effect.

FLORICULTURAL CALENDAR FOR JANUARY.

DAHLIAS.—Seed should be sown any time about the latter end of the month or early in the next. The old roots should be potted and placed in a hotbed frame, or stove, for early flowering, or raising by slips.

ROSES.—Those growing in pots, if placed in the stove, will bloom about the latter end of March.

TULIPS.—The beds will require sheltering from severe storms of hail, rain &c., if such occur.



Delaware



Expanded Crimson



Argentinea



THE
FLORICULTURAL CABINET,

FEBRUARY 1st, 1836.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.—*A New Arrangement of the Double-flow-
ered Chinese Chrysanthemums, with a simple Method
of Cultivating that beautiful Tribe of Plants.* By
MR. J. MARTIN, Gardener to J. S. POULTER, Esq.
M.P., Winchester.

Having derived both amusement and instruction from your useful and interesting publication, the *Floricultural Cabinet*, (to which I have been a subscriber from its commencement,) and feeling desirous of promoting the object for which it is intended, I herewith send you a list of my collection of Chrysanthemums, with the simple method I practice in their cultivation. I have some most beautiful varieties, which Mr. HAWORTH does not mention in Vol. I., p. 76, &c.; but which, I think, highly merit a place in your *Cabinet*.

I observed in Vol. II., p. 163, that Mr. FREDERICK made an inquiry respecting the season for transplanting the Chrysanthemum, so as to ensure a good bloom the following autumn; and as I have not yet seen any answer to his inquiry, I recommend to him the method of treatment I have practised, and which I here describe; and I am quite convinced that if it is properly attended to, it will ensure him a good bloom, and in fact answer the utmost expectations.

Soil.—The soil I use is a very simple mixture, and might be easily obtained. It is one-half good rotten dung, from an old

cucumber bed, and one-half yellow loam. This I mix well together some time before I use it for potting in.

Cultivation.—About the first week in April, I take off suckers, always choosing the strongest, but most dwarfy, suckers for that purpose. I take as many of each variety as I think I shall want to flower, never keeping less than two plants of a sort. These suckers I plant, one plant in a 48-sized pot, in the compost above described. After I have potted them, I place them in the shade, for about a fortnight, till the roots have got well established in the pots. I then remove them to a south aspect, where they get the sun the most part of the day.

I have sometimes known some of the sorts not throw up a single sucker. When this happens, I always turn the old plant out of the pot that it flowered in, and beat off the ball of soil; then trim off the long fibrous roots, of which the pot never fails to be full, and again repot the old plant, and place it along with the other pots. After I have done potting, I give them a good watering, to settle the earth round the plant, and in about a week they begin to make fresh shoots. About June I repot them into 32-sized pots, always taking care to keep them well watered. After I have repotted them, I cut off the top of every plant according to the height I wish to bloom them. If I wish for tall plants, I only just take off the extreme tops; but if I want dwarf plants, (which I think are most desirable in pots,) I cut them off very low, always taking care to leave three or four joints below the cut. These tops, if put into a bed where there is a little heat, will easily strike root, and make very handsome plants. I have taken cuttings off as late as the latter end of July; these cuttings, when struck, make beautiful little blooming plants about a foot high, and covered with foliage quite down to the pot. After I have potted them into 32's, I frequently water them with manure water: this I believe to be very beneficial to the plants. About the last week in July, I repot them again into 24-sized pots, always using the same compost as above described. About the middle of September, I shift them into 16-sized pots to bloom. The only exception is with the plants that are struck late: these I bloom in 32's. When any kind is scarce, it can be increased by cutting down the old plant when it is out of bloom, cutting in the shoots to short lengths, and putting them into a bed where there is a

little heat. Care must be taken to separate the lower end of the cutting close under a joint.

I now subjoin a list of my collection of Chrysanthemums, arranged according to their several colours, with a description of a few varieties, so far as I am acquainted with them.

Yellow-coloured Flowers.

- 1 Sulphur Yellow.
- 2 Superb Clustered Yellow.
- 3 Tasseled Flamed Yellow.
- 4 Quilled Yellow.
- 5 Tasseled Yellow.
- 6 Golden Lotus Flowered.
- 7 Golden Yellow.
- 8 Park's Small Yellow.
- 9 Windsor Yellow.
- 10 Indian Yellow.
- 11 Warratah Yellow.
- 12 Semi-double Deep Yellow, or Pale Quilled Orange.
- 13 Changeable Yellow.—This fine variety is as the name implies, the blossoms at first appearing of a rich copper colour, and, as the flowers expand, changing to a pure yellow; and although only of the middle size, appearing rather late, they make a very pleasing appearance, standing the weather well, and becoming much paler by age.

White-coloured Flowers.

- 14 Superb White.
- 15 Tasseled White.
- 16 Changeable White.
- 17 Indian White.
- 18 Paper White.
- 19 Semi-double Quilled White.
- 20 Quilled White.

Purple-coloured Flowers.

- 21 Starry or Changeable Purple.
- 22 Expanded Light Purple.
- 23 Quilled Light Purple.
- 24 Tasseled Purple, or Old Red.
- 25 Brown Purple.
- 26 Late Quilled Purple.

Purple-coloured Flowers—(continued).

27 Rosy Purple.

28 Wheeleriana, or Wheeler's Purple.—Of shortish growth, and flowers in the middle season of its group. The flowers are of a rosy purple colour, and the shape is somewhat remarkable. The exterior petals are rather long, and sometimes will expand, but they are generally quilled. The interior ones are short, quilled, and forked. Each quill is divided at the top into five points, and the top of each point is slightly tipped with white. Its flowers are rather large, and very beautiful. The foliage is much larger than any other variety of the Chinese Chrysanthemum that I am acquainted with. It is a very distinct variety from all others, and is very uncommon.

29 The Purple.—Of shortish stature, with pure purple, expanded, early flowers; and when full blown, is very Aster-like, shewing a considerable disk.

Rose or Pink-coloured Flowers.

30 Quilled Pink.

31 Clustered Pink.

32 Quilled Flamed Pink.

33 Rose or Pink.

34 Pale Pink.

35 Dwarf Pale Rose.

36 Semi-double Quilled Pink.

37 Flat Pink.—Of middle size in stem and flowers, but rather late in blooming, with expanded well-formed double flowers.

Blush-coloured Flowers.

38 Early Blush.

39 Curled Blush.

40 Blush Ranunculus.

41 Clustered Blush.—A fine-formed, early-flowering variety, producing its very double blossoms in clusters, on shortish firm footstalks, making a very neat appearance, and forming a distinct variety from the Starry Blush, hereunder mentioned.

42 Starry Blush.—This rather tall and beautiful variety flowers in the middle season very abundantly. The exterior petals at first appear few in number, but soon expand, and

become more double ; when full blown, it resembles a blush-coloured tassel. The foliage of the plant is singularly shaped, being very long and narrow, of a dark-green colour. It is a desirable variety in a general collection.

Buff-coloured Flowers.

43 Changeable Pale Buff.

44 Pale Buff.

45 Pale variety of Pale Buff.—A sport only from the preceding, but now an established variety, and more beautiful than its parent. The flowers are large, paler, more double, and more showy. The stature of the plant is tall, flowering in the middle season.

46 Orange or Buff.

Lilac-coloured Flowers.

47 Tasseled Lilac.

48 Curled Lilac.

49 Large Late Lilac.

Red-coloured Flowers

50 Gold-bordered Red.

51 Two-coloured Red.

52 Sanguinea, or Expanded Red. This magnificent, fine-coloured variety is of tall stature in its group, producing its blossoms in clusters, on firm upright footstalks ; and although the flowers are but a little better than half double, and only of the middle size, it has a most animated appearance, possessing a colour peculiar to itself. It flowers early and freely, and I should think this is a very likely variety to produce seeds of the most promising kind.—[See figure in the *Floricultural Cabinet* for January : the drawings of this and the other two varieties were taken from specimens sent us by Mr. MARTIN.—COND.]

Crimson-coloured Flowers.

53 Expanded Crimson.

54 Early Crimson.

Orange coloured Flowers.

55 Large Quilled Orange.

56 Semi-doubled Quilled Orange.

Salmon-coloured Flower.

57 Tasseled Quilled Salmon.

Brown-coloured Flowers.

58 Spanish Brown.

59 Semi-double Small Brown-flowered Japan. This is one of the very dwarfiest and smallest flowering varieties in the whole collection, sending up its small reddish-brown blossoms singly, not more than half double, and some nearly single. It flowers in the middle season, or later, and makes but a poor appearance. I conceive it to be a distinct species, owing to its very small leaves and flowers.

I regret to say that there are four varieties numbered in my list of which I am not able at present to give a full description, not having long possessed them; but I shall be happy to notice them at some future time, when I hope to be able to describe them more accurately. In the meantime, I shall be glad to solve any query that may be made on the *Chrysanthemum*, as far as my limited knowledge will permit.

JOHN MARTIN.

Winchester, Dec. 20th, 1835.

ARTICLE II.—*On the Culture of the Cyclamen Persicum.* By LOUISA HARRIET.

Your valuable little work, the *Cabinet*, having afforded me both amusement and instruction, I feel anxious to contribute my mite of information to its pages. Perceiving in the April Number, (Vol. III.) that at page 91 a correspondent says a few observations on the culture of *Cyclamens* would be acceptable, and not having seen the query answered, I send you the following extract, which you will perceive I have copied from the *Horticultural Register*, which work I took for the first three years, until the *Cabinet* appeared, which suited me better, being more interesting and useful.

“The *Cyclamen Persicum* begins to shew its flowers early in the year, and is in beauty throughout the months of March and April. As soon as the flowers fade, the pots are placed on their sides (as a caution against their being watered) in a corner of the greenhouse. In August the roots are taken out of the pots, and the earth adhering to them being first carefully shaken off, they are planted in an open, but sheltered border of the garden, where

they are allowed to remain until the cold forebodes frost ; they are then taken up, the fibres being carefully preserved, and are put into pots proportioned to the size of each root ; the crown of the plant is well covered with earth, and the compost used consists of two parts leaf-mould, one ditto sandy peat, one ditto ashes of burnt vegetables, and a small portion of thoroughly rotted dung. The plants thus potted are then arranged in a cold frame, and plunged to the rim in coal ashes ; in mild weather the glass is taken off ; but by night, protection from frost, and by day from cold and rough wind, is indispensable. On the flowers appearing, the plants are removed to the greenhouse, and are placed as near the windows as possible, to have the advantage both of sun and air ; they are abundantly watered with soft water, of the same temperature as the atmosphere they are growing in ; the leaves also are occasionally well sprinkled ; but this operation is gone through in the morning, and the windows of the house are immediately opened, otherwise the leaves would drop off, and the roots decay. The pots are well drained with pieces of brick. The dividing the roots to increase the stock of plants, is bad. The roots are a long time recovering the wound thus given, and do not afterwards flower so strong. Young plants are obtained very easily from seed."

LOUISA HARRIET.

Buckinghamshire, December, 1835.

ARTICLE III.—*Remarks on the Culture, &c. of the Azalea.* By MR. CH. VAN GEERT, Nurseryman and Florist, St. Willebrord, Antwerp.

The Azalea is a well-known plant throughout Belgium, and forms one of the most splendid decorations of the flower garden. It is generally considered to be the most beautiful genus of the hardy shrubs. Its neat form and bushy growth, the vast profusion of its flowers, the extensive variety and splendour of colours in the flowers, their appearance at a season when few other flowers are in bloom, and the little trouble which the plant requires when grown in a suitable soil and a good situation,—all combine to cause the plant to be much admired, sought after, and introduced into nearly every pleasure garden in Belgium.

The varieties of this handsome genus are very numerous, and have been raised in a short period. Twenty years since there were only a few very moderate species, having small insignificant flowers. Ten years since the *A. pontica* arrived in this country, and sold at a most extravagant price, its beauty being very highly extolled; this species became the parent of a vast variety.

I think it deserves to be recorded to the honour of a baker, one M. MORTIER, that devoting his leisure hours to the study and pursuit of Floriculture, he, by impregnation of different kinds, was the first to raise not only the first hybrid, but nearly all the superb varieties which are now dispersed and cultivated so extensively throughout Europe. After having most successfully raised numerous varieties from *A. pontica* and *calendulacea*, he impregnated the *A. pontica* with the pollen of *A. viscosa*. This co-mixture afforded a greater reward than was anticipated, and the produce was the foundation of a new and very distinct section—that of the *tardives*. In this class is displayed all the variations of which the Azalea is capable, and it comprises those varieties which are most admired and esteemed by amateurs and gardeners. Having raised such an immense variety of kinds, and judging as many were raised as could be classified, M. MORTIER resolved to give up hybridizing, concluding that to pursue the practice would only perplex the classification. I observe, however, that other persons have now taken up the practice, and some distinct and handsome varieties have been the reward of such attention.

In the commencement of the preceding observations, I stated that the genus Azalea required but little trouble when once properly planted. I shall, therefore, add some particulars respecting its culture.

Situation.—If a garden be high and dry, select a situation where there is a *very free* admission of air, but it must be *wholly* shaded by trees or walls. If the garden be low and damp, select a situation where there will be the best circulation of air, and about half shaded.

Soil.—Take out a foot deep of the natural soil of the place, and fill it with the following compost:—Leaves well decayed and rotten, and which have not been submerged. The best kind is produced from the Oak. If this cannot be had, take decayed turf, with a third part of that dry rottenness which is found in trees,

particularly in the trunks of old willows, and which has been well dried before using. Either of the above are good for the purpose, but I prefer the former. With either of them, mix a tenth part of sea sand for the humid situated garden or place, and the same proportion of a good loamy soil for a dry garden, &c. In such a soil the plants will flourish so as to bloom amazingly.

Some taste as to arrangement of the kinds and colours is required, so as to produce the greatest effect; this the cultivator will doubtless attend to, so that a specifying of the kinds will be necessary for me to add. I shall, therefore, shortly send a list, with colours of flowers, height of growth, &c. of the most superior kinds which I cultivate in my nursery grounds.

CH. VAN GEERT.

Nov. 22, 1835.

ARTICLE IV.—*On the Culture of Orchideous Plants.* By A COUNTRY FLORIST.

(CONTINUED FROM PAGE 6.)

ONCIDIUMS.—The greater part of this genus are highly beautiful flowering plants. The flowers are produced in branching panicles, containing a considerable number of flowers upon each. The plants are of easy culture, grow very freely, and bloom very profusely. The whole species deserve a place in every collection.

1. *Oncidium altissimum*, The tallest growing. As the name imports, the flower stem reaches to a great height; with me it has extended to twelve feet, and numerously branched. The flowers are of a fine yellow, spotted with brown. It blooms in August and September.

2. *O. ampliatum*. This species is a most profuse bloomer, producing its fine blossoms upon a branching raceme of considerable size. The flowers are very showy, yellow, slightly spotted with brown. Blooms in February and March.

3. *O. barbatum*, The bearded flowered. The flower stem rises to near two feet high, bearing a panicle of yellow flowers, which are singularly pretty. It blooms in April and May.

4. *O. bicornutum*, The two horned. This kind produces a

many flowered panicle of flowers of a greenish yellow colour, spotted and masked with brown and red. It grows freely; and although the flowers are not so showy as some others of the genus, they are, nevertheless, very handsome. Blooms in May and June.

5. *O. bifolium*, The two-leaved. The flowers are of a pretty yellow colour, produced upon a panicle, which rises about nine inches high. It is an ornamental species. Blooms in June and July.

6. *O. Carthaginiensis*, The Carthaginian. The flower stem reaches to six feet high, and produces a profusion of flowers. They are not of a very splendid colour, being of a reddish-green, but, nevertheless, are very pretty. Blooms in May and June.

7. *O. ciliatum*, The eye-lash flowered.

8. *O. crispum*, The curled flowered. The flower stem has reached three feet high with me, producing numerous blossoms of a brownish-yellow colour. As the name imports, the flowers are much curled. They are very handsome. Blooms in June.

9. *O. divaricatum*, The branching flowered. The flower stem rises two feet high, and produces abundance of blossoms; they are of a greenish-yellow, with red spots. It is a very pretty flowering kind. Blooms in July and August.

10. *O. flexuosum*, The binding flowered. A very neat and handsome flowering species, the flower stem rising three feet high, and producing numerous bright yellow blossoms, slightly spotted. It is of easy culture. Blooms in July and August.

11. *O. juncifolium*, Rush leaved. The flower stem rises near a foot high, and the flowers are a pretty yellow colour, appearing very ornamental. It blooms in June and July.

12. *O. Harrisonia*. This is a very handsome species, which was found by Mr. WILLIAM HARRISON, on the Organ Mountains, in Brazil. The plant is readily distinguished by its fleshy, slightly channeled recurved leaves, each of which is placed upon a little pseudo bulb. The panicle of flowers extends about a foot long, and they are arranged in a very graceful manner. The flowers are of a bright yellow, spotted with red-brown. I have grown it very finely in moss and rotten wood, and equally so, in turfy peat mixed with broken potsherds. Blooms in April and May.

13. *O. Lanceanum*. This is a very showy, flowering species. I have a small plant which has bloomed profusely. The handsome

yellow flowers, slightly spotted, producing a very pleasing effect. The plant appears of easy culture. Blooms in August and September.

14. *O. Lemonianum*. This species is very curious as well as pretty. The flower stem rises about six inches high, producing a few neat flowers, about six or eight; they are of a bright yellow spotted with red. Blooms in May and June.

15. *O. luridum*, The darkish flowered. The flower stem rises to three feet high with me, and produces panicles of olive green coloured flowers, which have a singular appearance. Blooms in February and March.

16. *O. pumilum*, The dwarf. The flower stem rises to about six inches high, producing a panicle of yellowish green flowers, which forms a pretty appearance. Blooms in June.

17. *O. papilio*, The Butterfly plant. The flowers of this kind are of a most singular structure, as the name imports, resembling a butterfly. The flowers are produced singly, each upon a long stem, rising two feet high; they are of a bright orange-yellow, spotted with a rich red-brown. It ought to be in every collection. Blooms in March.

18. *O. pulchellum*, The handsome. One of the most handsome of the genus, the delicacy of the flowers is superior. The flower stem is about ten inches high, producing a profusion of flowers being white tinged with yellow and pink. This kind deserves a place in every collection. The blossoms are highly fragrant. Blooms in July and August.

19. *O. tetrapetalum*, The four petalled. The flower stem rises about one foot high, producing a panicle of lively yellow flowers. It is an elegant kind. Blooms in July and August.

20. *O. triquetrum*, The three angled stem. The stems are triangular, six inches high, producing a panicle of pretty yellow flowers. It is an ornamental kind. Blooms in September.

21. *O. variegatum*, The variegated flowered. This kind is a very ornamental flowering one, the stem rising two feet high, and producing numerous greenish-yellow flowers, blooming in June and July.

In addition to the above named twenty-one species, I have received three others (said to be new) without any specific name. They have not bloomed with me. When they do, (if a new species)

the particulars respecting them shall be sent for insertion in the *Cabinet*.

Most of the genus is of easy culture, growing freely in pots with turfy peat soil, intermixed with broken potsherds. They will also grow well if tied to a piece of wood, with the bark upon it, (if slightly decayed the better,) and suspended in the stove; care is required to have a good deal of moisture, by watering the flues, &c. where they are thus grown. The Butterfly plant does well in this way, as does *O. Harrisonia*, *flexuosum*, *ampliatum*, *divaricatum*, *crispum*, and *bifolium*. When I fasten the plant at first to the wood, I attach a portion of moss thereto, and to the lower part of the plant; this aids the roots in striking sooner, and thus facilitates its growth. This mode of treatment has a singular appearance, but the panicle of flowers has never been so vigorous with me as in pot culture; but when practised it gives a pleasing variety for notice. It is well worth adopting, as all the kinds are easy of increase, and amply repay by the produce of flowers.

The general observations, at the commencement of this paper, in respect to culture, are particularly observable in respect to the treatment of the *Oncidium*s. I find that during the hot part of the summer, that is, from the end of May to the end of August, the plants require a slight shade. I have a Vine planted at the end of my Orchideæ house, purposely for the fine foliage to create a shade during the period named. In procuring a shade by this means, the Vine does not come close to the top of the house, but light is admitted liberally there, and a few intermediate openings are allowed, by thinning out some of the leaves in a suitable degree.

The period of flowering, as given to each kind, is that in which they have usually bloomed with me, when potted in spring; but plants may be forwarded or retarded by placing them in a low or high temperature, and giving them rest at different seasons.

A COUNTRY FLOREST.

(TO BE CONTINUED.)

ARTICLE V.—*On the Culture of the Tree Rose.* By ROSA.

As very considerable interest has been excited in the floricultural class of the community, in consequence of the introduction

of the articles on Roses which have appeared in the *Cabinet*; and as no remarks have been inserted on the mode of forming that most ornamental appendage to a shrubbery, the Tree (or, as it is sometimes called, Standard) Rose, I am induced to send some observations upon the formation and culture thereof. They are the result of my own successful practice. An eminent nurseryman, a great Rose cultivator, gave me the first hints on the subject; and I have pursued the same treatment with satisfaction to myself. In the course of experiment I have made some improvement in the practice. I shall, therefore, send, for insertion in the *Cabinet* from time to time, the course of treatment I pursue from first to last.

Selection of Stocks to bud, &c. upon.—Any time from the end of October to the middle of February, plants of the wild English Rose are procured. I find, however, that the earlier the better. There are several varieties of stocks to be had: those I prefer being far the best, and of a very upright growth, making shoots nearly half an inch in diameter, and growing several feet high in one season. The colour of such is either wholly green barked, or green slightly tinged with brown. The ripe fruit of both is of a long oval shape. These kinds are generally to be met with in plantations or woods, and occasionally in hedges. There is a spreading, bushy-growing kind, which has a red bark, and a small roundish fruit: this I find does not answer near so well as the others,—the buds not taking so freely, nor, if they take to uniting at all, do they grow so kindly afterwards.

In getting up the wild stocks, I have always given strict orders to my gardener to get them up with as much length of root as convenience would admit. This attention is necessary in order to get some fibrous roots; and, after all, it will often occur that not a single fibrous root will be found upon the main roots. They are, however, very free to grow under either circumstance; only the former ones afford the advantage of making more and stronger lateral shoots the first season, and also better-placed shoots for budding upon.

Stocks of different sizes and heights are procured, in order to suit a vigorous, or less so, growing kind, to be inserted by budding, and to have some worked from two to five feet high. Care is taken to get such stocks as are free from large knots, some such being

found upon the stocks when of several years' growth. It certainly adds to the beauty of the tree, to have a straight free-growing stock.

Having got up the stocks, on a day that is not frosty, I have them brought as soon as convenient, that the tender roots may not be damaged by exposure to a cool air.

In planting them, I select a good soil about a foot deep, and have a portion of well-rotted dung dug into it. The strongest growing kinds of stocks I plant in one piece of ground, and the less so in another. This is easily ascertained by observing what strength the lateral shoots have previously grown, before removal. The necessity of this selection is requisite, because if a very vigorous growing kind were inserted into a small stock, the bud would take all the support, and grow to a single shoot, or form a poor head.

Before planting, I have the stocks dressed, cutting clean away all lateral shoots to the height at which I wish the stock to be kept, and cutting off the head about a quarter of an inch above a bud, in a sloping direction from the bud. Any damaged roots are finished with clean cuts, either by a knife or fine-toothed saw. The top cut of the stock I always cover over with a mixture of bees' wax and pitch, to keep out wet.

The stocks are planted in rows at from two to three feet apart, arranging the tallest in the back row, and the lower ones in the front proportionably. A trench being made, the roots are regularly disposed, and covered from four to six inches deep, treading the soil gently upon the roots, and close up to the stem, to fasten it properly. I then have a stake fixed so as to tie it to its place, and prevent its being shaken with the wind. I have observed in some nurseries a long stick, fixed horizontally at the height of three feet, and to which the stocks were tied; but this does not answer so well as each having a separate stake to keep it in an upright position, the wind driving those secured in the cross-bar manner in a falling direction.

Nothing more is required till the stocks push shoots in March, or early in April. I shall, therefore, reserve the next remarks for the March Number of the *Cabinet*.

Rosa.

Hertfordshire, Jan. 6th, 1836.

ARTICLE VI.—*On the Cultivation of German Asters.*
By EMILY ARMSTRONGE.

HARTSEASE asked in the July Number of the *Cabinet*, 1834, would German Aster Seed grow in the open ground, or must it be sown in a hot bed? I answer, it will grow in the open ground, but the flowers will be poor and diminutive; if he wishes for Asters possessing beauty and magnitude, let him have the seeds sown in a hot bed in the middle of the month of March, and when sufficiently strong and large to transplant, remove them to the bed intended for their blooming in. The soil of this bed should consist of horse dung well rotted, and turned, for the previous six months, to the depth of two feet in thickness, and trode level as subsoil; then over it, rich fresh strong loam, from an old pasture, with a sixth part of leaf mould, twelve months incorporated with the ashes of the top spit of a moory pasture pared and well burnt, two feet in height over the subsoil; by observing this plan, it will supersede the necessity of removing the plants between the first sowing and final removing; and if thus treated, they will attain a great height and magnitude, and produce a mass of flowers of a superior size: observe to have them well watered when transplanted, if the weather should prove dry, to enable them to strike freely.

In the progress of my remarks on a flower garden, I stated, I would offer a few remarks on the Culture of the *Lobelia Cardinalis*. Having grown this splendid flower for several years, in various ways, to ascertain the best, and yet, at the same time, the easiest manner of cultivation; I send you this short account of my method of treatment, more especially, as after perusing the communications of AN ARDENT AMATEUR and G. H., myself, and many of your readers, who possess neither Stove, Hot-house, nor Green-house, would be deterred from the cultivation. If the plants should be left unprotected in the open ground during the winter season, they droop and finally decay early in the spring season. Also on trial, I found the plants though well mulched around each root during the winter and spring months, with a flower pot inserted over the crown of the plants in frosty or rainy nights and days, yet they never reached a greater height than one or two feet, and was attended with considerably more trouble than this simple way. After the flower stalk has been cut down, which takes place about

the latter part of October, remove the entire plant, including suckers, into large flower pots, with a ball of earth attached to each plant, sufficient to fill the pot; place the entire in any vacant sun-shiny room, without fires in the room. The first week in the March succeeding, take off the offsets from the parent plant, as I am convinced spring is preferable to autumn. In the course of six weeks, have them removed into larger pots; this causes them to strike freely, when transplanted to the garden border, which should be airy, and yet sufficiently screened from cold winds. This border should have been previously prepared with well rotted stable manure to the depth of three inches, well trenched in, over it leaf mould, light mellow loam, pit sand, and yellow clay well incorporated six months previously, well sifted and raked, to the height of eight to twelve inches over the trenched dung. The border I choose in which to plant my roots is nearly level; this I prefer for the purpose of retaining a regularity of moisture, which sloping ground does not admit. By the above cultivation I have had strong plants throwing up vigorous flower stems, to the height of six feet, covered with a profusion of flowers. Observe, during dry weather, to water them frequently, as they require a large portion; check the growth of all weeds around each plant by repeated turnings of the upper surface.

EMILY ARMSTRONGE.

ARTICLE VII.—*Designs for Flower Gardens,—No. II.*

Design 3rd. Communicated by AMICUS.

Herewith I forward you several sketches of Flower Gardens, for insertion in the *Cabinet*.

The scale given with the plan, *fig. 3.* (see next page), will when laid out, occupy a space of twelve perches, that is, three hundred and sixty-three square yards of ground. But, of course, the plan will be applicable to a somewhat less, or larger piece of ground, by altering the scale.

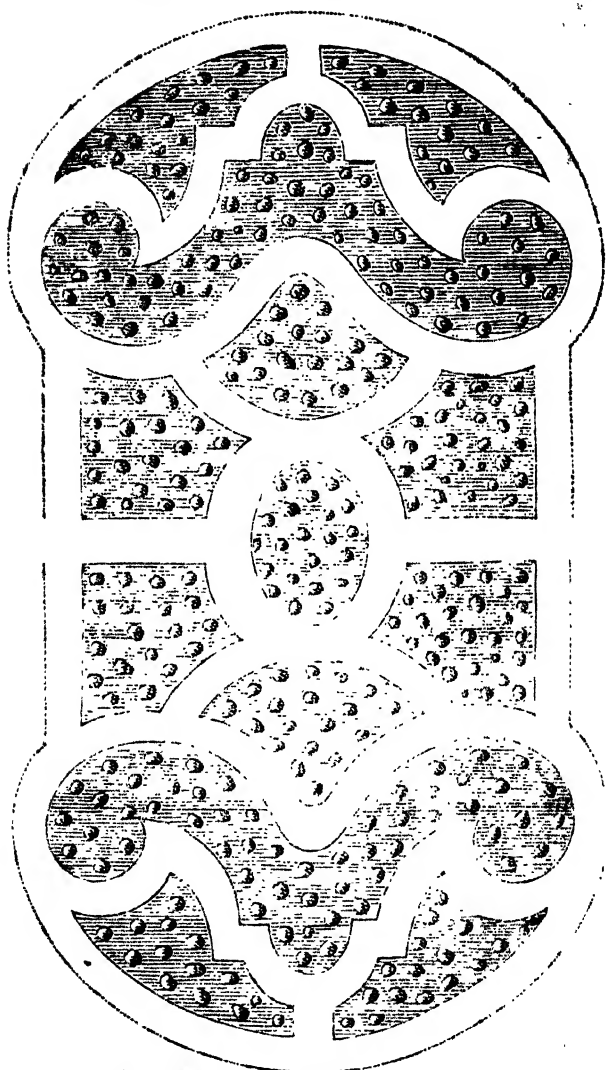
The plant represents walks, box edgings, beds and clumps.

I have not specified any plants to occupy the beds, as these will vary, to suit the taste of the proprietor, or the situation the garden may be placed in.

AMICUS.

Middlesex, 1836.

Fig. 8.



11.1.1.1. 1 20 40

PART II.

NEW OR RARE PLANTS

WHICH WE HAVE NOTICED SINCE OUR LAST.

1. *Agrostemma Bungeana*, Dr. BUNGE's Scarlet Campion. (*Brit. Flow. Gard.*) Synonym, *Lychnis Bungeana*. Class, Decandria; order, Pentagynia. Natural order, Caryophyllaceæ. The flowers of this very beautiful perennial species very much resembles those of *Lychnis fulgens*, but are larger, of a very fine scarlet, with a small white centre. The flower is nearly three inches across, and has a showy appearance. The stem grows about a foot high, branching, and each branch terminated by a solitary flower. The plant is a native of Asiatic Russia, consequently quite hardy, and will flourish in any good garden soil. It was received into this country by Dr. NEILL, near Edinburgh, from Plotbeck Nurseries, Hamburgh. The plant flowered with Dr. NEILL in July, 1835. It is easily propagated by cuttings, and by seeds which are produced abundantly. The plant ought to be grown in every flower-garden. Dr. BUNGE, after whom it is named, was the companion of M. LEDEBOUR, in travelling over the Altai Mountains.

2. *Aristolochia fœtens*, Stinking Birthwort. That very distinguished patroness of floriculture, Mrs. MARRYATT, Wimbledon, near London, received this singular flowering plant from the West Indies, and during last summer it bloomed in the hothouse of that lady. The flowers are large, about five inches across, very handsomely spotted and streaked with white, green, yellow, and purple. As its specific name implies, the flowers have a very disagreeable scent. The foliage has a noble appearance, being of a fine green, heart-shaped, about eight inches long, and of a proportionate breadth. Gynandria Hexandria. Aristolochiaceæ. *Aristolochia*, from *Aristos*, best, and *lochia*, parturition; referring to medicinal qualities.

3. *Astragalus Monspessulanus*, Montpellier Milk-Vetch. (*Maunder's Bot. Gard.*) A very pretty flowering species, a native of France, blooming in June and July. The flower stem grows about one foot high. The plant soon spreads, so as to make a good sized patch, and when in bloom produces a showy appearance. The flowers are of a rosy-purple colour. Being a hardy perennial, it merits a place in the flower-garden, or on rockwork. The plant may be obtained at most of the extensive nursery establishments. It was introduced into this country in 1710, but is still uncommon. Dialecthia Decandria. Leguminosæ. *Astragalus*, from *Aster*, a star, and *gala*, milk.

4. *Cereus Napoëonis*, NAPOLEON'S Cereus. (*Bot. Mag.* 3458.) The flower of this species is much like the Night-blooming Cereus (*C. grandiflorus*), but appears to be somewhat larger. The present species blooms in the day, opening in the morning and closing in the evening. The flowers are slightly fragrant, similar to the above named species. It bloomed in the stove at the Edinburgh Botanic Garden, in September, 1835. The flowers are about eight inches long, and as much across. The outer petals are yellow, and the inner ones of a pure white. Icosandria Monogynia. Cactææ. *Cereus*, from *cereus*, pliant; alluding to the shoots of some species.

5. *Coreopsis coronata*, Crowned Coreopsis. (*Bot. Mag.* 3460.) A very showy, handsome flowering annual plant, sent from the Texas by Mr. DRUMMOND, in 1835. The plants bloomed the same year, through summer and autumn. The flowers are more than two inches across, of a fine yellow, having a handsome brown circle nearly midway up the petals. The plant grows about two feet high, and blooms profusely. It deserves a place in every flower-garden. As it will readily produce seeds, they

be in possession of most of the general seedsmen. Syngenesia Frustranea. Compositæ. Coreopsis, from *Koria*, a bag, and *opsis*, resemblance; alluding to the seeds.

6. *Cosmelia rubra*, Red-flowered. (*Bot. Reg.* 1822.) A very handsome flowering greenhouse plant, introduced from New Holland. The flowers are about an inch long, ventricose formed, of a pretty red colour. They very much resemble some of the finer sorts of *Ericas*, as *E. tumida*. The plant appears to be like the *Epacris* tribe of plants. The blossoms are produced abundantly from May to July. It deserves a place in every greenhouse. It is grown by Messrs. Loddiges, Hackney Nursery. Pentandria Monogynia. Epacridaceæ. *Cosmelia*, from *Kosmeo*, to ornament; in allusion to its beauty.

7. *Daphne odora*, var. *rubra*, Red flowered fragrant *Daphne*. (*Brit. Flow. Gard.* 320.) Synonym, *D. carnabina*. This pretty flowering variety was introduced into this country from China in 1831, and has bloomed in the nursery of Mr. GEORGE SMITH, Islington, near London, where, in a compost of leaf-mould, peat, and sand, it grows very vigorously. It is quite hardy, but doubtless, like the *D. odora* of our greenhouses and conservatories, the variety would succeed admirably in a similar habitation, where it would bloom for several months. The flowers are of a pretty red colour, and highly fragrant. The plant merits a place in every shrubbery, greenhouse, or conservatory. Octandria Monogynia. Thymelææ. The name *Daphne* has been given to the present genus, in consequence of its resembling the *Laurus nobilis* in its leaves.

8. *Dendrobium densiflorum*, Dense-flowered. (*Bot. Reg.* 1828.) A very splendid flowering Orchideous plant, grown in the collection of Messrs. Loddiges. The plant grows in a pendulous manner, about two feet long. The flowers are numerous produced upon a raceme about ten inches long; they are of a handsome yellow colour, and make a very showy appearance. It deserves a place in every collection. Gynandria Monandria. Orchidææ. *Dendrobium*, from *Dendron*, a tree, and *bios*, to live; growing upon.

9. *Hibiscus Rosa sinensis*, Single flowered Chinese Rose Mallow. (*Bot. Reg.* 1826.) Although this species is an old inhabitant in the stoves of this country, it is not near so frequent to be seen as the double flowering kinds. The present species is very handsome; the flower is large, of a fine crimson colour, with the centre darker. In its native country, (China,) this plant is employed for hedges. Although to the botanist, a double flower of the *Hibiscus* does not possess much interest, yet to the admirer of a showy flower, the double crimson, buff, yellow, and white varieties of this simple flowering species are very interesting. Monadelphica Polyandria. Malvaceæ.

10. *Lasthenia californica*, Downy *Lasthenia*. A new hardy annual, blooming in June and July when sown early, and later when sown accordingly. The plant grows about half a yard high. The flowers are single, about an inch across, of a pale yellow colour. Syngenesia Polygamia Superflua. Asteraceæ.

11. *Lilium longiflorum*, Long flowered. (*Maund's Bot. Gard.*) This species was introduced from China in 1820. It grows from one to two feet and blooms in June and July. The flowers are white.

12. *Nierembergia calycina*, Large calyxed. This singular flowering species is a native of Buenos Ayres, where it was discovered on the banks of a river, by Mr. TWEDDIE, and by that gentleman transmitted to the Glasgow Botanic Garden in 1834. The plant has the habit of the *Peunia*, and the flower that of the *Nierembergia*. The plant has bloomed in the garden of Dr. NEILL, Cannonmills, near Edinburgh. The flower has a narrow tube near four inches long, which is of a sulphur-white colour. The limb of the flower is about an inch and a half across, a pure white, having a few stains of rosy-purple. The plant grows freely, and blooms profusely when grown in the open borders during summer. It will not withstand the severities of winter, but is readily increased by cuttings or slips. The old plants can be easily preserved in winter, either in a dry cool frame or greenhouse. Pentandria Monogynia. Solanææ.

13. *Pimelea ligustrina*, Privet leaved. (*Bot. Reg.* 1827.) This very neat and pretty species is cultivated by Mr. Lowe, of the Clapton Nursery, near London. A native of New South Wales, and of Van Dieman's Land, where it grows to the height of three or four yards. The foliage is very neat, and when clothed with its numerous globose heads of white flowers, must have a very pleasing appearance. It will form a hardy greenhouse shrub in this country, and well deserves admission there. It is readily increased by cuttings. Diandria Monogynia. Thymelæaceæ.

14. *Pimelia hispida*, Hispid flowered. (*Bot. Mag.* 3459.) A most beautiful flowering species, which ought to be in every greenhouse in the country. It is a native of New Holland. The flowers are of a fine rose colour, and are produced in vast profusion. Both the tube and limb of each flower is clothed with hairs. The capitate heads of flowers are of a large size, and a plant a foot high is uniformly capable of showing forty such heads of flowers. We expect the plant will find its way into all the public nursery establishments.

15. *Pleurothallis picta*, Painted flowered. (*Bot. Reg.* 1825.) A small but pretty species, composing a tuft of two inches high. The flower stems are produced numerously, rising about three inches high. The flowers are very diminutive, of a greenish-white streaked with red. We have seen it grow well, kept under a bell-glass. Messrs. Loddiges cultivate it in this manner. Gynandria Monandria. Orchideæ.

16. *Troximum glaucum*, Glauous-leaved. (*Bot. Mag.*) Synonyms *T. cuspidatum*, *T. marginatum*. A hardy border plant. It does not produce a stem, but the flower stalks rise from the ground. The foliage rises from the crown of the root, similar to the common Dandelion. The flowers are of a bright yellow, near three inches across, and being compound, make a very showy appearance. The under side of the petals is streaked with red. The plant blooms from June to August. Syngenesia Equalis. Compositæ.

17. *Verbena rugosa*, Wrinkled leaved Vervain. The flowers of this new species are very like *V. venosa*, of a violet colour, and being produced in profusion, make a very showy appearance. The plant grows about two feet high, is a hardy perennial, of easy cultivation, readily increased either by cuttings or putting the roots. The present species is cultivated in the Birmingham Botanic Garden. Didymia Angiospermia. Verbenaceæ.

18. *Veronica labiata*, Fragrant white flowered Speedwell. (*Bot. Mag.* 3461.) Synonym, *V. Derwentia*. A very pretty greenhouse species, a native of New Holland, and Van Dieman's Land. RONALD GUNN, Esq. transmitted it to the Glasgow Botanic Garden. The flower stems rise to two feet high, each producing, at the top, several erect racemes of rather large, white, fragrant flowers. It is a very pleasing addition to a collection of greenhouse plants. We hope it will soon be extensively cultivated. If it increase as readily as the hardy kind, this will unquestionably be the case. Diandria Monogynia. Scrophulariæ.

There are some new species of *Veronica* yet unpublished, recently found by Mr. CUNNINGHAM in New Zealand:—

1. *V. speciosa*. A very showy, spreading, shrubby species, growing from three to six feet high, producing numerous stems, crowned with racemes of purple-violet coloured flowers. Of all the plants which have been sent from New Zealand,—even the splendid *Chionochloa*, now so much admired in this country,—none are more showy and beautiful than the *V. speciosa*. When introduced into this country, it will be a most splendid acquisition to our gardens. We hope seeds of it will soon be transmitted, so that ere long our shrubberies may be ornamented with this fine plant.

2. *V. ligustrifolia*, Privet-leaved. A slender shrub, growing two feet high, producing numerous branches, terminated by racemous spikes of white flowers.

3. *V. diosmifolia*, Diosma-leaved. A slender twiggy shrub, growing from three to twelve feet high. The numerous branches are terminated by corymbs of many white flowers, which make a very showy appearance.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON RAISING ROSES, &c.—I should be obliged if any contributor to the *Cabinet* would give a paper on raising Roses from seed. R.

ON THE CULTURE OF BLETIA TANKERVILLE.—If some correspondent of the *Cabinet* would give me some information how to treat the Bletia Tankerville, so as to cause it to produce its singular and splendid flowers, I should be very highly obliged. I have some very fine plants, but cannot get them to bloom. I should also be glad of the best mode of treatment with *Zinzibar officinalis* (Ginger), so as to obtain fine roots to supply a family with.

Wellington.

J. R. W.

ON THE INTRODUCTION OF THE DAHLIA.—A subscriber to the *Floricultural Cabinet*, and a cultivator of the Dahlia, would be greatly obliged for the information, at what period this splendid genus was introduced to our gardens, and by whom. Like the Tulip of Holland, this beautiful flower, endless in its hybrid varieties, is becoming more and more interesting and valuable, even as an article of commerce; and I think our gardens so much indebted to the collector who introduced this noble plant, that some grateful notice should be taken of the service rendered, by some honourable mention of the name, at least, for the Metropolitan Society of Florists and Amateurs.

London, 1835.

A. Z.

REMARKS.

ON CAPE BULBS.—The *Floricultural Cabinet* for the present month, (Nov. 1835,) contains some enquiries and remarks signed by A CULTIVATOR OF CAPE BULBS, a beautiful class of flowering plants, which I observe with pleasure are beginning to attract general attention. I am a great admirer, and rather an extensive cultivator of them, for my own amusement; but I regret to say, that with the exception of the *Ixia crispa* and *Trichonema cruenta*, which I received as a present last year from the Cape, I have none of these the Correspondent inquires for. However, I think it may be of interest to look over a list of what I have. I therefore enclose one, and shall be happy to exchange any thing that may strike him, or other readers, for any of the many varieties I have not got. Application (post paid) may be made to the Editor of the *Floricultural Cabinet*, Wortley, near Sheffield, who has my address. I must remark that the whole of this tribe thrive here in the open air, or at least with a very slight temporary protection in the shape of stable litter and mats, the flowers attain a size and brilliancy of colour which I have never seen equalled in England. A vast number of new and beautiful varieties of Sparaxis are annually raised from seed by myself and other Amateurs; and I have a few seedling hybrid *Ixias*, which I think would be acquisitions to any collection. Having been raised here, they are consequently much more hardy than any imported bulbs, which is no small advantage. The *Ixia heleni*, or *Cobourgia fulva*, I have been enquiring for for some time without success. I wish some Correspondent would inform me, which is the best and most correct catalogue: I have found the same plant under so many different names, that I am at a loss which to abide by, and am frequently deterred from purchasing by the fear of only receiving duplicates of what I already have.

Guernsey, 1835.

- *Babiania rubro-cyanea*.
- ——— *plicata*.
- ——— *purpurea*.

- ** *Tritonia conica*.
- ** ——— *concolor*.
- ** ——— *cristata*, pink and white.
- * ——— *scarlet*.
- * ——— *lineata*.
- * ——— *var. aurantiaca*, tall growing.
- Watsonia iridifolia*.
- *fulgens*.
- *rosea*.
- *alteroides*.
- *carnea*.
- ** ——— *pyramidalis*, four feet high, lilac, very handsome.
- *hamilis*.
- Trichonema cruenta*.
- * *Wachendorfia cerifolia*.
- Ornithogalum merum*.
- Lachenalia* (purple and blue).
- * *Vienassenia glaucopsis*, Peacock Iris.
- * *Anomatheca cruenta*.
- ** *Gladiolus cardinalis*.
- ** ——— *psittacinus*.
- * ——— *Colvillii*.
- * ——— *laevis*.
- * ——— *roseus*.
- * ——— *communis alba*.
- * ——— *hastatus*.
- * ——— *venosus*.
- ** ——— *viperatus*.
- * ——— *cardinalis inflatus*.
- * ——— *versicolor blandus*.
- *blanda angustiblanda*.
- *cardinalis angustiblanda*.
- *cardinalis versicolor*.
- *inflatus blandus*.
- *Don Quixotte*.
- *floribundas rosea*.
- *alba*.
- ** *Sparaxis grandiflora*.
- ** ——— *tricolor* (or *stellata*).
- *Griffithii*.
- *aristata*.
- ** ——— *var. Dwarf* early yellow.
- ** ——— *var. Common* straw.
- ** ——— *var. Buff*, and blue outside.
- ** ——— *var. Yellow*, and brown outside.
- * ——— *var. White*, and red outside, tall.
- * ——— *var. The Pheasant's eye*.
- NEW SEEDLINGS.
- No. 1, pink, yellow eye.
- No. 2, white, black eye.
- No. 3, lilac, yellow eye.
- No. 4, pale red, yellow eye.
- No. 5, white, with a delicate pink stripe.
- No. 6, black velvet, yellow eye.
- yellow, shaded with brown.
- ** *Ixia viridiflora*.
- * ——— *grandiflora viridis*, seedling.
- ** ——— *viridescens*, do.
- * ——— *viridiflora livida*, do.
- * ——— *aulica*, bright pink.
- ** ——— *crateroides*, rich crimson, beautiful.
- ** ——— *sebor*, dark pink, branching growth.



Calochortus venustus.



Phacelia congesta.



Entola viscidula.



Corallorhiza picta.

- *Iris fusca*, pale pink.
- — *scutellaria* (dwarf), small, star-shaped blossoms.
- — *leucantha*.
- — ————— *maculata*, small crimson eye, seedling.
- — ————— *maculosa*, large crimson eye, do.
- — *purpurea*, fine purple dark eye.
- — *lilacea*, beautiful seedling.
- — ————— *patens*.
- — *ochroleuca*, buff with purple edge, very handsome.
- — *polystachia*, orange and black eye, very fine.
- — *sulphurata*.
- — *sulphurata capitata*, lemon, with dark eye.
- — *multiflora*, or *capitata tricolor*, pink and white with a black eye, very beautiful.
- *crispa*.
- *erecta*.
- *lutea*.
- *pentandria* } lately received, and not yet bloomed.

J.

REFERENCE TO THE EMBELLISHMENTS.

1. *Calochortus venustus*.—This very handsome flowering, bulbous rooted plant, was introduced by the London Horticultural Society, about two years since. It was sent from California by the late Mr. DOUGLAS. The flower stems grow to about two feet high, each producing several blossoms, which remain expanded for some days. The plant is of easy culture, growing well in any good garden soil moderately enriched. The plant requires treating similar to the *Tigridia pavonia*, by potting early in spring, about February, and turning them out entire, in April, into the open border. When the blooming is over, the foliage is allowed to wither, as done by the Tulip, &c. The plant is a valuable acquisition to the flower garden; and when planted in a mass, produces a most beautiful effect. Plants may be obtained at several of the public Nursery Establishments. We perceive Mr. YOUNG, of Taunton, states that he possesses it. (See *Cabinet*, Jan. 1836, page 20.) *Hexandria Monogynia*. Siliaceæ.

2. *Phacelia congesta*, Cluster-blossomed.—This very neat and pretty flowering annual plant was sent from Galveston Bay, by the late Mr. DUMMOND. It is a valuable acquisition to the flower garden. It requires to be treated as a tender annual. The abundant corymbs of its neat flowers make a showy appearance. As seeds are produced freely, it will speedily be in general cultivation. The plant belongs to *Pentandria Monogynia*. Hydrophyllææ.

3. *Eutoca viscida*.—This very pretty flowering annual plant, we found in cultivation in the garden of the London Horticultural Society in the last summer; and though there was not a profusion of flowers, the fine deep colours of the racemes of them, make a showy appearance. The flower stems, we think, grow about half a yard high, but we neglected to make a minute of that particular at the time. The liberality of the Society will soon cause the seeds of this plant to be spread through the country, and become an ornament to our flower gardens in general. We also got a drawing of the beautiful new *Mimulus cardinalis*, which we shall shortly give. *Pentandria Monogynia*. Hydrophyllææ.

4. *Oxalis Piottæ*.—Through the kindness of a friend, we were favoured with a drawing of this pretty, neat, flowering plant, which we observed flowering in the neighbourhood of London during the last summer. It was grown in pots; but we think from its appearance, that it would flourish even better if planted in the open border during spring and summer, and then be taken up, and protected in a greenhouse or cool frame during winter. The plant is a most profuse bloomer for several months successively, and a valuable acquisition to our flower gardens and greenhouses. We saw two other new and handsome species, which we have got drawings of for the *Cabinet*.

FLORICULTURAL CALENDAR FOR FEBRUARY.

GREENHOUSE.—This department should have good attendance during this month, similar in its operations to those directed in January, which see.—Oranges, Lemons, and Myrtles will require water frequently, they usually absorb much. The herbaceous kind of plants will require occasional waterings, but less frequently and in less quantities than the woody kinds. Succulents, as Aloes, Sedums, &c. should be watered very sparingly and only when the soil is very dry. Air should be admitted at all times when the weather is favourable, or the plants cannot be kept in a healthy state. If any of the Orange, Lemon, or Myrtle Trees, &c. have naked, or irregular heads, towards the end of the month, if fine mild weather occur, begin to reclaim them to some uniformity, by shortening the branches and head shoots, by this attention they will break out new shoots upon the old wood and form a regular head; they should also be repotted in rich compost, reducing the old ball of earth carefully, and replacing with new soil. After sifting it would be of great use to the plants, if the convenience of a glass case could be had, in which to make a dung bed, that the pots might be plunged in, this would cause the plants to shoot vigorously, both at the roots and tops.

ANNUALS.—Towards the end of the month, sow most of the tender kinds which require the aid of a hot bed in raising.

ANOMATRECA CRUENTA, the bulbs of should now be repotted into small pots, to prepare them for turning out into beds, so as to bloom early.

AURICULAS should now be top dressed, taking off old soil, an inch deep and replacing it with new.

BULBS, as **HYACINTHS**, &c., grown in water glasses, require to be placed in an airy and light situation. The water will require to be changed every three or four days. The flower stem may be supported by splitting a stick at the bottom into four portions, so as it will fit tight round the edge of the glass at the top.

CALCEOLARIAS, seeds of, should be sown during the month, and be placed in a hot bed frame.

CARNATIONS, layers should be transplanted into large pots towards the end of the month, or planted in the open border.

CUTTINGS OF SALVIA, FICUSIA, HELIOTROPES, &c., desired for planting out in borders or beds during spring or summer, should now be struck in moist heat, in order to get the plants tolerably strong by May, the season of planting out.

DAHLIAS.—Seed should be sown either in pots, or upon a hot bed. Pots or boxes with seed placed in a warm room, near light, and admitting plenty of air to the plants when up, will succeed well. Dahlia Roots should now be potted or be partly plunged into a little old tan in the stove, or a frame to forward them for planting out in May. As shoots push, take them off when four or five inches long, and strike them in moist heat.

HERBACEOUS PERENNIALS, BIENNIALS, &c.—May be divided about the end of the month, and planted out where required.

HYDRANGEAS.—Cuttings of the ends of the last year's wood, that possess plump buds at their ends, should now be struck in moist heat; plant one cutting in a small pot (6's). When struck root, and the pot is full of roots, repot them into larger; such plants make singularly fine objects during summer.

MIGNONETTE, to bloom early in boxes, in pots, or to turn out in the open borders, should now be sown.

RANUNCULUSES should be planted by the end of the month.

ROSE TREES, LILACS, PINKS, HYACINTHS, POLYANTHUSES, NARCISSES, &c., should regularly be brought in for forcing.

TENDER ANNUALS.—Some of the kinds, as Cockscombs, Anemones, &c. for adorning the greenhouse in summer, should be sown by the end of the month; also any tender Annuals, desired to bloom early in the open border.

TEN WEEK STOCKS, RUSSIAN AND PRUSSIAN STOCKS, &c., to bloom early, should now be sown in pots, placed in a hot bed frame, or be sown upon a slight hot bed.

THE FLORICULTURAL CABINET,

MARCH 1st, 1836.

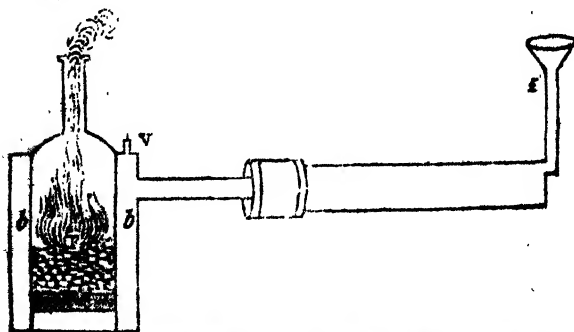
PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.—*On an Economical Mode of Heating a Pit Frame, &c.* By A CULTIVATOR OF CAPE BULBS.

Having lately had occasion to apply stove heat to a pit, on a very small scale, I am induced to send you an account of an apparatus which I have employed with complete success, and which I believe to be by far the most effective, as well as the most economical, both in original construction and consumption of fuel, of any hitherto in use. It will enable any one, who has a three-light Melon-pit, to cultivate as many stove plants as it will contain, with very little trouble. The annexed plan will afford the best explanation of my apparatus.

Fig. 4.



B boiler.

F furnace.

f funnel and air pipe.

V valve.

b b is a cylindrical boiler, 16 inches high, and 12 inches in diameter, containing within it a similar and concentric cylinder, of the same height, but only eight inches in diameter. The two cylinders are connected at top and bottom, forming a hollow cylinder, which is my boiler. The small inner cylinder being the furnace, a pipe $2\frac{1}{2}$ inches in diameter connects this boiler with a cast-iron water pipe, 4 inches in diameter, and 9 feet long, placed horizontally along the front of the pit inside, and closed at either extremity by a wooden plug, through one of which passes the pipe which connects it with the boiler, whilst the other is pierced for a small air-pipe. A steam-valve on the top of the boiler, and a filling screw like that attached to the oil-vessel of a lamp, completes the apparatus; the bottom of the furnace being formed by a circular grate, resting on three brackets about two inches from the bottom of the furnace cylinder. A moveable cover with a chimney to it, capable of being closed by a damper, regulates the fire. The boiler and iron pipe being filled with water, either through the filling screw or by a funnel attached to the air-pipe, a fire is lighted in the furnace; a small quantity of coke is requisite to light it at first, after which cinders are the only fuel; and so slow is the combustion, when properly regulated, that this small fire will remain alight eleven hours without any addition of fuel, and keep the water nearly at boiling heat the whole time. My pit is 10 ft. 6 in. by 6 ft. 9 in.; and I find the four-inch pipe rather too powerful a heater, as it raises the temperature upwards of 30 degrees, and requires air to be given all day long: a three-inch pipe would probably be quite sufficient, and judging from the power of my boiler, I reckon that it would produce sufficient heat to keep a *twelve-light pit* from 12 to 15, perhaps 20, degrees above the external air. My boiler is made of tin, which (the furnace being lined with fire tiles) will last some time; and the whole expense of the apparatus does not exceed £2 5s. Its consumption of fuel is very small. Of course, such an apparatus is susceptible of several improvements, many of which I have in contemplation; but from its extreme simplicity and utility, I hasten to make it known, even in its present state. As the boiler is not bigger than a watering pot, it may be detached, and taken away when not in use.

ARTICLE II.—*On a Stand for Exhibiting Pansies.*

By MR. CAREY TYSO.

In reply to the query of your correspondent, "J. K.," in your January Number, respecting the best description of stand for the exhibition of Pansies, I beg to offer the annexed sketch of one

Fig. 5.

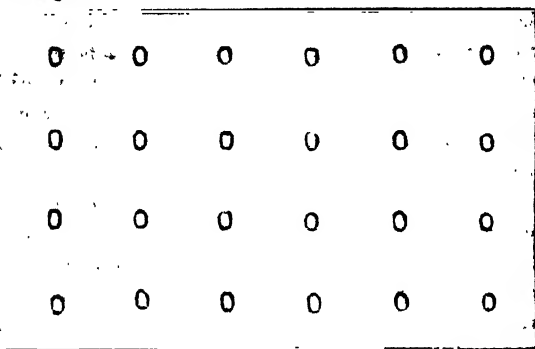
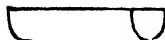


Fig. 6.



admirably adapted for shewing twenty-four varieties, that being the number usually adopted by the most popular Horticultural Societies. The top of the stand should be of stout tin plate, 14 inches by 9. Twenty-four holes should be cut at equal distances, which will allow them to be about $2\frac{1}{2}$ apart every way; the holes should be oval, and nearly $\frac{1}{2}$ an inch in length. Pieces of tin $1\frac{1}{2}$ inches in length, bent semicircular, and two ends should be soldered on the plate under each hole, forming a receptacle (*fig. 6.*) which will hold a large table spoonful of water for each bloom, and will admit of the flower stalks being $1\frac{1}{2}$ inches long. Four

Fig. 7.

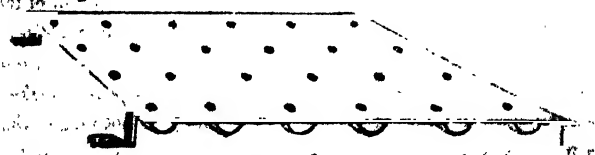


Fig. 8.



legs should be fixed on, the two back ones an inch longer than the front, which will give it a convenient elevation.

Stands for Pansies are frequently made with a tube running under each tier of blooms, so that each row can be supplied with water by filling at any one hole, but a stand so constructed cannot be moved without danger of spilling the water.

The advantages of the stand above described are obvious. It may be filled constantly by plunging in a tub of water, and the water, being in small and separate quantities, there is not the slightest danger of spilling in carrying it, or sending it any distance by coach. In the latter case, of course it must be enclosed in a box just large enough to admit it.

There is a natural propensity in the flower stem of a Pansy to curl an hour or two after gathering; this assists in keeping the bloom steady, by pressing the stem against the plate of tin. The stand may be painted green, and as the petals lie flat on the surface, they are seen to great advantage.

This stand has been used at the exhibitions of the Royal Berks Horticultural Society.

CAREY TYSO.

ARTICLE III.—*On the Culture of the Camellia.* By SPECTATOR.

The universal estimation in which the Camellia is held by the lovers of the floral world, induces me to offer for insertion in the *Cabinet*, the following remarks on its culture and propagation:—

SOIL.—Camellias may be grown to great perfection in either of the two following composts, well broken, but not sifted:—First, one part light loam, one part peat earth, one-half part rotten leaves, one-half part old hot-bed dung, and one part coarse river sand. Second, one part loam, one part peat earth, one-half part dung, and one half-part river sand. The loam and peat should at least be one year old, from the time of lifting them from their original situation.

PROPAGATION.—This is readily done either by seeds, cuttings, inarching, grafting, or budding.

SEEDS.—This is very easily obtained from a number of sorts, if impregnation be carefully attended to, on any flowers that open after the first of February; I find they will not readily swell their

seed-pots before that time. The following sorts are the finest seeders of any that I am acquainted with, viz.:—*Curtea*, *anandajifera*, *undulplex*, *variabilis*, *Chandleri*, *insignis*, *pauciflora*, *Pomponia*, and all the single flowering sorts. The seeds should be sown a few days after being gathered, in any of the above mentioned composts, and placed on a shelf in a pine or plant stove, and kept moderately moist; they will begin to appear in six weeks, and in the course of three months, will be mostly all above ground; they will be ready to be potted off singly, into small pots, the following August.

CUTTINGS.—The single red Camellia is propagated by cuttings, and on them the other sorts are inarched, and sometimes grafted, or budded; I consider August to be the best time to put in cuttings, but they may be put in at any time except when making young wood. The cuttings are formed of ripened, or ripening, young wood, cut smoothly across at a bud or joint; two or three of the lower leaves are only taken off. The cuttings are then made firm with a small dibber, in well drained pots of sand and loam, or sand alone, and placed in a cool shady place for a week or two, and then plunged to the brims in a gentle hot-bed frame, or bark pit, under a hand-glass; when they have struck root they are potted off singly into small pots, in either of the above mentioned composts, and again placed in a gentle hot-bed frame for two or three weeks, after which they may be placed along with the general collection.

INARCHING.—This is the surest and most generally adopted method of increasing new and desirable sorts. As to the proper season for inarching, the spring is the best, and just about the time when the plants have burst their wood buds. This state of vegetation does not always take place at precisely the same time, as some cultivators force their Camellias very early; such, therefore, should be operated upon not by the exact period of the year, but by the state of the plants; some will be fit for the operation as early as January, others as late as May. The stocks require to be about the same forwardness as the plants to be inarched from; they are prepared by taking of a thin slice off one side, just merely to remove a small portion of the wood; the scion is prepared in like manner. The process of tongueing should be dispensed with, as it tends to weaken both stock and scion, and is no benefit to

them in uniting. They are fitted together in the usual manner, and fastened with fresh matting, which is wound round the stock from about an inch below the union, and carried up about an inch above. No clay, but only a little fine moss is used to envelope the part operated upon and afterwards kept moist. The leading shoot of the stock should not now be shortened, but left till some time after the union is ascertained to be complete, it should then be headed down to about two inches above the union, the remaining part to be removed some time after. When the scion has pushed its full length, and is beginning to ripen its wood, it should then be cut nearly half through, and in a fortnight more cut a little deeper, and in eight or ten days more cut entirely away from the parent plant.

GRAFTING.—The two following methods I consider to be the best:—Where scions can be had of a proper length, that is from four to six inches, prepare the scion at any convenient length from the bottom, in the same way as for inarching the stock in like manner. The lower portion of the scion is thrust into a small potatoe or turnip, or a phial or a cup, kept full of water, or into the soil near the bottom of the stock; or where scions cannot be had of a convenient length, that mode of grafting termed side grafting is preferred as next best. After fitting and fastening together with fresh matting, and clayed or mossed, they are placed in a gentle hot-bed frame or bark pit, and kept regularly shaded: little or no air should be given till the grafts have pushed an inch or two. The time before a union of the scion and stock takes place is various in different sorts, and more especially in regard to the state of health in which the plants may be. Observation alone can dictate when the clay, and afterwards the bandage of matting, should be removed; there is an evil in allowing either to remain on too long, as well as taking them off too soon.

BUDDING.—This is done in the usual manner of budding other plants; after budding they are treated in the same way as grafts.

REPORTING THE PLANTS.—This should be done just before the plants are placed into heat to make their young wood and flower buds. The size of the shift must entirely depend on the state of the roots, some of which will require larger than others. When the roots are in a good healthy condition, for small plants one inch clear all round the ball will be sufficient; and for large

plants, from two to three inches. An inch deep of drainage or more for large plants should be placed at the bottom of each pot, and a little moss put over it to keep the soil from mixing with the drainage. A shift once in two or even three years will be sufficient for large plants.

WATERING.—From the time they begin to make their young wood till they have finished growing, they can scarcely be over-watered; but during the winter season, if too plentifully supplied, they will soon become sickly, and drop their flower buds. For this no rule can be given: experience and observation on the part of the cultivator can alone be a safe guide. The plants should get a good syringing at least once a week during the summer season, but more especially when making young wood.

SITUATION.—This very popular family have the best effect, and are grown to most advantage, in a house entirely devoted to themselves; and as there are certain seasons in which they require a treatment almost peculiar to themselves, their separate culture is, therefore, the more necessary. Such house should be rather lofty, as the plants never look so well as when eight or ten feet high, trained in a conic form, and clothed with branches from the root upwards. Where such a house cannot be had, they may be grown to nearly equal perfection where there is the convenience of a Vinery or Peach-house at work; and where no such convenience can be had, by placing them in the warmest part of the greenhouse, when making young wood and flower buds, a few of the hardiest sorts will be found to do pretty well.

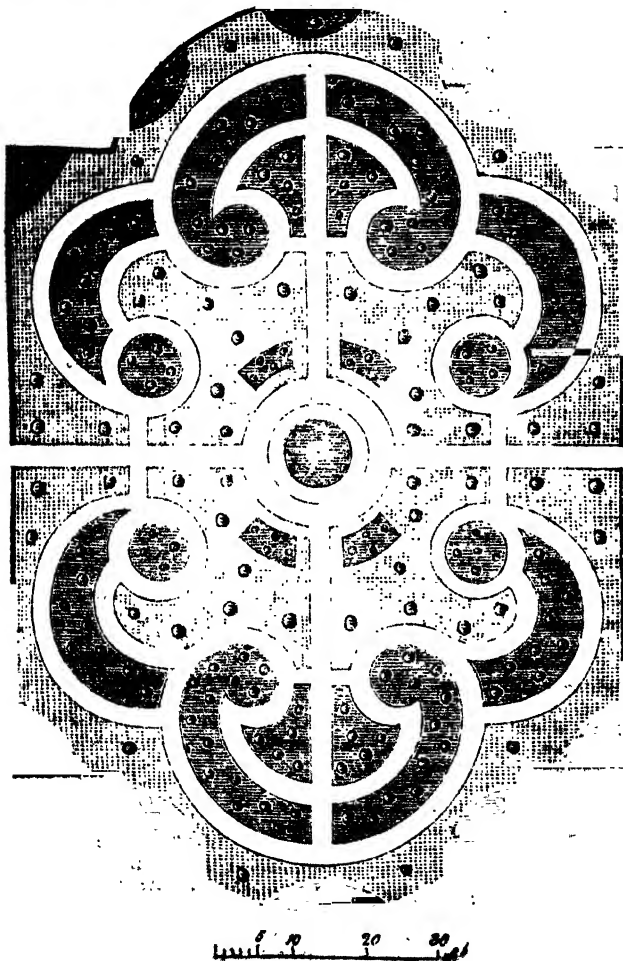
HEAT.—For this no rule can be given, unless they are grown in a house entirely devoted to themselves. Where such is the case, from 60 to 65 degrees will be sufficient for the first fortnight, and afterwards increased to 70 or 75 degrees. All the striped sorts require more heat than the self-coloured varieties, more especially when the ground colour of the flower is red; unless such be given when forming and maturing their flower buds, they very often come one-coloured. This is more especially the case with varieties *Chandlerii*, *insignis*, *corollina*, *Altheaflora*, &c.; whereas, when grown to perfection, they are marked with large spots of clear white. A little heat given in dull damp weather, at the flowering season, will be found to be of very great advantage to the flowers.

Scotland, January 14th, 1836.

SPECTATOR.

ARTICLE IV.—Designs for Flower Gardens,—No. III.**Design 4th. Communicated by AMICUS.**

The plan represents a Flower Garden, with gravel walks, box, or other edging, and some grass introduced upon which dwarf ornamental flowering shrubs may be planted. The centre is occupied by a small basin, for gold and silver fish.



ARTICLE V.—A Select List and Description of Cape Ericas. By SPECTATOR.

A selection of Ericas having been requested by Correspondents, I have drawn up the following List of them, as a selection of the most showy and freest flowering sorts, taken from a collection containing upwards of three hundred kinds. I can assure the admirers of this generally esteemed tribe of plants that they are all splendid flowering kinds. I have added the colour of the blossoms, and month of blooming; so that persons desirous of making a small selection may be enabled to suit their convenience.

DIVISION I.

Flowers long and cylindrical shaped.

<i>Flabovirens</i>		Plukenet's	red	April to July
	<i>pallida</i>	pale	pale red	May to July
<i>pecta</i>		painted	orange yellow	July to Oct.
<i>Petivorii</i>		Petivori's	yellow	March to July
	<i>coccinea</i>	scarlet	scarlet	March to July
	<i>fusca</i>	brown	brown	March to July
<i>verticillata</i>		whorled	scarlet	Aug. to Dec.
	<i>major</i>	larger	scarlet	Aug. to Jan.
<i>Sebana</i>		Seba's	orange	March to June
	<i>fusca</i>	brown	orange	April to June
	<i>lutea</i>	yellow	yellow	March to June
	<i>minor</i>	smaller	orange	April to June
<i>Eweriana</i>		Ewer's	pink	July to Oct.
	<i>glabra</i>	smooth	pink	July to Nov.
	<i>speciosa</i>	showy	red	July to Oct.
	<i>pilosa</i>	pilose	flesh	July to Oct.
<i>grandiflora</i>		great flowering	orange	May to Sept.
	<i>humilis</i>	humble	yellow	May to July
<i>cruenta</i>		bloody flowered	dark red	May to Sept.
<i>versicolor</i>		various coloured	orange and red	May to Oct.
<i>splendida</i>		splendid	scarlet	May to Aug.
<i>mammosa</i>		nipple	purple	Aug. to Jan.
	<i>major</i>	larger	purple	Aug. to Jan.
	<i>pallida</i>	pale	pale red	Aug. to Jan.
<i>epistomia</i>		spout flowered	yellow and green	May to July
<i>galida</i>		ice cold	white and green	April to July
	<i>albans</i>	whitish	white and green	May to Aug.
<i>transparens</i>		transparent	delicate pink	June to Aug.
<i>translucens</i>		translucent	light red	May to Aug.
<i>perspicua</i>		clear flowered	blush	May to July
	<i>nana</i>	dwarf	blush	April to June
<i>costata</i>		ribbed flowered	pale pink	March to June
	<i>superba</i>	superb	scarlet	May to July
<i>spuria</i>		spurious	pale red	April to Aug.
<i>Linnaea</i>		linnaea like	purple and white	March to Aug.
<i>curvisora</i>		curve flowered	yellow	Dec. to Feb.
<i>pellucida</i>		pellucid	white	June to Aug.
	<i>rubra</i>	red	red and purple	Aug. to Nov.

Linnaea	Linnaeus's	white	March to July
colorans	colouring	white and pink	April to June
viridiflora	green flowered	dark green	July to Sept.
Bowieana	Bowie's	pure white	March to Dec.
aurea	gold colour	orange	July to Sept.
pinea	pine-leaved	red	May to July
pulchella	pretty	red	June to Aug.
purpurea	purple	purple	July to Sept.
Massonli	Masson's	red and green	June to Sept.
minor	smaller	red and green	June to Sept.
vestita	tremulous	white	Sept. to June
incarnata	flesh coloured	flesh	Sept. to June
purpurea	purple	purple	Sept. to June
coccinea	scarlet	dark scarlet	Sept. to June
exurgens	rising	dark orange	Sept. to June

DIVISION II.

Flowers much inflated.

blanda	charming	purple and orange	March to Sept.
Monsoniana	Lady Monson's	white	April to Aug.
Dickensonii	Dickenson's	white	May to Aug.
rubra	red	red	May to Aug.
cerinthoides	honeywort like	dark scarlet	May to Nov.
major	larger	scarlet	March to Jan.
nana	dwarf	scarlet	March to Jan.
principis	princely	scarlet	May to Sept.
carnea	flesh coloured	flesh	May to Sept.
tricolor	three coloured	red and green	June to Aug.
minor	lesser	red and green	June to Aug.
major	larger	red and green	June to Aug.
inflata	inflated	white and pink	June to Oct.
metuliflora	nine-pin flowered	red	June to Sept.
oblata	bottle	white and red	March to Sept.

DIVISION III.

Flowers narrowed upwards, with a spreading border.

Lawsoni	Lawson's	flesh	April to June
ventricosa	bellied	flesh	April to Sept.
coccinea	scarlet	scarlet	April to Sept.
stellifera	star bearing	flesh	April to Sept.
carnea	flesh coloured	flesh	April to Sept.
alba	white	white	April to Aug.
superba	superb	scarlet	April to Sept.
erecta	erect	pink	April to Oct.
hirsuta	hairy	flesh	April to Sept.
prægnans	swelled	flesh	May to Aug.
Irbyana	Irby's	pink	June to Oct.
jusminiflora	Jasmine flowered	white and pink	June to Nov.
alba	white	white	June to Nov.
ampullacea	flask	blush	June to Sept.
Shannonia	Lady Shannon's	white and green	June to Sept.
retorta	recurved leaved	pink	June to Oct.
Cliffordiana	Lady Clifford's	white	Nov. to Feb.
Aitoniana	Aiton's	whitish pink	Aug. to Dec.
comosa rubra	tufted	red	June to Aug.
alba	white	white	June to Aug.
Daphniflora	daphne flowered	pale purple	April to June

Parmenteriana	Parmenter's	pale purple	July to Sept.
rosea	rose coloured	rose	July to Sept.
Bouplandiana	Boupland's	pale yellow	April to Aug.
infundibuliformis	funnel shaped	dark purple	July to Oct.
aristata	awned	red, purple, & white	April to Aug.
minor	small awned	red and white	Feb. to April
primuloides	cowslip flowered	purple and white	April to June
Coventryana	Lord Coventry's	pink	July to Sept.
mirabilis	admirable	pink	May to July
Juliana	July	red	July to Aug.

DIVISION IV.

Flowers inclosed in an inflated calyx.

calycina	large calyxed	red	March to June
andromedæflora	andromeda flowered	pink	March to May
elegans	elegant	pale red	April to Oct.
lachnæfolia	lachnæ leaved	white	May to July
nigrata	black tipped	white	March to June
triumphans	conquering	white	April to June
Thunbergia	Thunberg's	orange	July to Sept.
taxifolia	yew leaved	pink	Aug. to Nov.
melanthera	dark anthered	pale purple	May to July.
flaccida	flaccida	white	Dec. to Aug.
Solanaria	Solander's	purple red	Aug. to Jan.
fragrans	fragrant	pink	March to June
obcordata	obcordate	pink	Sept. to Feb.
rubella	reddish	pink	June to Aug.

DIVISION V.

Flowers small and globose.

ardens	glowing	scarlet	April to June
physoides	flatulent	white	March to July
Lambertiana	Lambert's	blush	Aug. to Jan.
incarnata	flesh coloured	pale red	April to Aug.
Blandfordiana	Lord Blandford's	yellow	April to July
Savilliana	Savile's	red	July to Sept.
ollula	pupkin flowered	purple red	Sept. to Jan.
gracilis	slender	purple	Feb. to June
præcox	early	purple	Jan. to March
declinata	declined	white	Sept. to Nov.
ramentaceæ	ramentaceous	dark red	July to Sept.
odorata	perfumed	white	June to Sept.
campanulata	bell flowered	yellow	April to Aug.
pura	pure	white	Aug. to Sept.
triceps	three headed	white	July to Oct.
ovata	ovate flowered	purple	June to Sept.

DIVISION VI.

Flowers small, not globose.

rostellia	small beaked	white	June to Sept.
cubica	cube flowered	purple	June to Sept.
minor	smaller	purple	June to Sept.
scabriscula	marsh	white	June to Aug.
palustris	roughish	flesh	June to Oct.
formosa alba	handsome	white	June to Sept.
rubra	red flowered	red	June to Sept.
florida	florid	blush	May to Aug.

mucronata	mucronated	pink	May to Aug.
quadriflora	four flowered	purple	April to July
Solandriana	Solander's	purple	Dec. to March
pulehiella	pretty	red	July to Sept.
			SPECTATOR.

Scotland, Jan. 14, 1836.

ARTICLE VI.—*Gleanings from Old Writers. No. II.*

By TULIPA.

I hate flattery, and so make my remarks as short as possible. The *Cabinet* will, no doubt, meet the reward it merits, which is very great.

EXTRACT FROM COWELL.

"The *Fretillary* or *Chequered Daffodil*, as some call it, is a flower well known, but the varieties are very scarce and uncommon.

"The seed will shew itself ripe when the husks wherein 'tis included, change of a yellowish colour, grow dry and crack, then one may gather it about noon on a warm day, and keep it till July, and then sow it: you will soon find a diversity of leaves of the seedling plants, and when they come to flower, much more surprising appearances.

"The soil this root likes best is a light sandy ground, and especially such as comes from heaths, mixt well with some fresh earth from under the turf."

On the Hepatica, from the same.

"There are divers sorts of *Hepaticas*, as the white, the blue, and the blush or pearl bloom colour; of these there are the single and the double, but 'tis the single that is only useful to raise plants from by seed. As soon as the seeds are gathered they should be sown, for they being a small seed, and therefore 'tis not advisable to keep them lying out of the ground.

"To make a seminary of them, have large pots, about ten inches deep and a foot or fourteen inches over, fill these with a black sandy soil, such as one gets from heaths, and well mixt with an equal quantity of rich garden soil.

"When the earth is gently pressed down, sow the seed, and sprinkle over the seed, as much of the same earth, as when it is

prest down, will cover it the thickness of half-a-crown, then water it well with a fine rose watering pot.

“ Cover the pots with nets to keep the birds from the seed, for, small as it is, they will have it if possible, and this being done, set the pans under a wall exposed to an east aspect till June is past, and then set them under a north wall, for they love shade.

“ When these plants have two or three leaves a piece, they may be transplanted in a bed of fine earth of the sort before-mentioned, but it must be done by a very careful hand, for the roots being very small, should not be bruised by any means; and then if the plants are not replanted as soon as they are taken up, the fibres will be endangered of drying by the air, and then the plant runs the hazard of being lost.

“ When you transplant these seedlings, set them six inches distance, and water them well, and shade them for a week or ten days.

“ From one hundred of such seedling plants I raised above twenty sorts, different from what I had before.”

The following remarks, (from the same Author, COWELL,) may be of use even to your Floricultural Friends at this period, though not coming exactly under the title, but in little fancy gardens about London I have no doubt it will be acceptable:—

“ My particular observations of vines amount to this extraordinary direction:—That if we have vines in espaliers, or against walls, we must always expect the young wood to bear fruit, for 'tis from the young wood only that we have shoots that bear grapes. I mean by the shoots which we ought to preserve such as have shot last summer, and of those in an irregular vine, save the strongest in which you will see two sorts of buds and joints. In one sort, the buds will lie pretty near one another, and in the other, for three or four joints beyond them, the buds will be set at long distances, and these last will not bear fruit till the second year; beyond these again, we find the joints shorter for three or four buds, which buds will bear fruit the same year.

“ In the common pruning of these shoots, they ought to be left long, in proportion to their thickness; but be sure to leave so much of each shoot upon the tree as has its joints short, and the buds full, which will be about four or five.”

produced from June to September, and make a very showy appearance. It is probable that in sheltered, and sunny situations, the plant would flourish if grown in the open border. The plant may be procured of most of the public nurserymen. Pentandria Monogynia. Solanææ. Lycium, from *Lukion*, the name of a thorny shrub; referring to the many thorns the plant contains.

10. *Oenothera humifusa*, Pencilled flowered. (*Bot. Req.* 1829.) A creeping annual plant, producing a profusion of bright rose coloured flowers. It composes a patch of some extent, having a neat and striking appearance. Each flower is near an inch across. The plant deserves a place in every flower garden. It is cultivated in the splendid collection of Mrs. MARRYATT, at Wimbledon, near London; and from the circumstance of producing seeds freely, we expect it will soon be in the hands of the public.

11. *Oncidium Russellianum*, The Duke of Bedford's Oncidium. Sent from Rio Janeiro to the gardens at Woburn last year, where it has bloomed. The flowers are produced on a raceme, each having about four or five. Each flower is about an inch and a half across. The sepals are of a brown purple colour, edged with green. The labellum is lilac, with a purple centre edged with white. Gynandria Monandria. Orchideæ. Oncidium, from *Ogkidion*, a tubercle; alluding to two prominences on the lip.

12. *Pentstemon Cobæa*, Cobæa flowered. (*Bot. Mag.* 3165.) By far the most splendid of this showy genus. The specific name was applied to the present perennial plant, in consequence of its strong resemblance to the flowers of the Cobæa scandens. The flowers are produced in a spiked terminal panicle. Each flower is of a whitish purple outside, inside white, with a yellowish throat, streaked with red. The flower stems rise about two feet high. [In November, 1835, we received a drawing of this splendid species, representing four flowers, from a friend in Glasgow; they were not as large as those of the Cobæa, but about two inches long, and one and a half across the mouth of the corolla. The drawing had been made from memory only, not having a living specimen.—CONSTRUCTOR.] This very showy species ought to be in every flower garden. Didynamia Angiospermia. Scrophulariæ. Pentstemon, from *pente*, five, and *stemon*, stamen.

13. *Saracha nescosa*, Clammy. This plant is a native of Peru. It has all the general appearance of a Solanum. Its only distinction is its filaments being woolly at the base, closing up the tube, and having heart shaped anthers. This plant is a greenhouse shrub, growing about half a yard high. The flowers are whitish, an inch and a half across, succeeded by a berry of a fine red colour, the size of a May Duke Cherry. Pentandria Monogynia. Solanææ. Saracha, in compliment to J. SARACHA, a Spanish botanist.

14. *Sarcochilus falcatus*, Falcate-leaved. A very pretty flowering Orchideous plant, cultivated by R. BAREMAN, Esq., at Knypersley Hall, Messrs. LODDIGES, and others. It is a native of New Holland, sent in 1821. The flowers are produced on a short raceme of about three inches long, each having from three to six flowers. The flower is about three quarters of an inch across; white with a slight tinge of yellow, and red at the centre. Gynandria Monandria. Orchideæ. Sarcochilus, from *Sarz*, flesh; and *cheilos*, a lip.

15. *Telekia speciosa*, Large flowered. (*Bot. Mag.* 3166.) Synonym, *Bupthalmum cordifolium*, B. speciosum, *Inula Caucasica*, I. macrophylla. An old showy flowering inhabitant of our gardens. Stem rising six feet high, producing yellow flowers, about four inches across. It is a hardy perennial. Syngenesia Superflua. Composite.

16. *Trifolium reflexum*, Buffalo Clover. Seeds of this handsome flowering Clover were sent from Texas by Mr. DRUMMOND, in 1835. The plant is hardy, herbaceous. Stems grow about nine inches high, crowned with large heads of beautiful rose-coloured flowers. It merits a place in every flower garden. Blooms from June to August. Diadelphia Decandria. Leguminosæ. Trifolium, from *tres*, three, and *folium*, leaf; three leaves on each stalk.

EXTRACTS.

On the Cultivation of the Bouvardia triphylla. By Mr. JOHN MEARNS.

I have at this time (April 18th, 1829) 100 plants of it which will blossom strong this summer in the flower garden here, 50 of which are only from roots of last year's propagation; and many of these flowered the same season, although not planted till April. This year they will become strong flowering plants towards the autumn, after the first bloom is over. My method of treating them is as follows:—about the middle of April, I collect all my Bouvardias together, from the places where they have been kept through the dormant season, some among my orange tubs, others in cold frames, and others under the stage of the green-house; I turn them all out of their pots, shaking the soil from their roots; I trim off most of the large roots, yet retain as many of the fine fibrous ones as possible; I likewise at the same time cut down all the former year's shoots, retaining only two, three, or four eyes on each, according to the strength and age of the plant; I then plant them in pots suitable to the size of the plant, taking care neither to overpot them nor to cramp the roots by confinement. When I have got all potted and watered to settle the earth about their roots, I place them in a cold frame, which I cover with hay and mats at night; I keep the lights close during the night, and even in the day, unless the sun is very strong upon them, till they begin to grow, when I give them portions of air according to the day, and their advance in growth. Subsequently I leave the lights off through the day, and at last do not put them on at night. About a week after they have been thus exposed, I plant them finally out for the season either in clumps to themselves, or distributed among other plants, when they are soon in true bloom, and continue to flower till Christmas. By the autumn some of the year's shoots will have attained a yard in length, and will be crowned with fine luxuriant clusters of their splendid trumpet like flowers. The beauty of the plants thus treated, has been the admiration of those who have long known the plant, but have only seen it managed in the usual way; under which one or two of them are kept stunted in pots, in which its flowering season soon terminates, and its blossoms are not so attractive as those of the scarlet Trumpet Honey-suckle.

As soon as I apprehend frost, I take up the plants with balls of earth attached to the roots, and place them carefully in pots, with good mellow soil. When they are thus replaced in pots and watered, those which are in luxuriant blossom I mix among the green-house plants, where they make a splendid appearance till January.

I continue the treatment of them as above stated, and it may be continued for many years, for the application of fresh soil, the trimming of the old roots, and the great luxuriance gained by growing in summer in the open ground, renovate the plants, which could not be done by any other means of culture.

I propagate the Bouvardia by cutting of the roots. I fill some large fruiting pine pots with good fresh mellow loam, well blended with either thoroughly rotten dung, or vegetable mould. I plant my roots all over the pot, beginning in a circle round the outside, opening the soil, and planting them with my finger, and continue filling up one circle within another, till I finish in the centre of the pot, or pots, leaving no more of the roots visible above the surface than just the top. I then water and place them in a hot-house at from 60 to 70 degrees of heat by night. As soon as the shoots get to between four and five inches high, I transfer the plants singly into pots of a small size, and by degrees harden them after they have got established. When they have made some progress, I plant them out into a bed four feet wide, eight inches between the rows, and four inches in the row; where, if the soil be good, many will soon be in flower. I pot them again before frost, and treat as done to older plants.—*Trans. Hort. Soc.*

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON GLADIOLUSES.—I shall feel obliged if you, or any of your correspondents, will inform me of the names of a few of the leading sorts of Gladioluses, to flower in the greenhouse, in pots; with their proper treatment, time of potting, &c. &c. An early answer will greatly oblige.

Dec. 23rd, 1835.

AN EAST HANTS CONSTANT READER.

ON DAHLIA PLANTS.—I should be obliged if some subscriber to the *Cabinet* would inform me, which treatment is best for securing good Dahlia plants where only two or three of the same kind are required. Is dividing the roots, or taking young cuttings early in the spring, the best?

T. B.

ON RUSSIAN VIOLETS, &c.—I shall be obliged to you to inform me, through the medium of the *Floricultural Cabinet*, what soil and management best suits the Russian and Neapolitan Violets, to secure *profuse* bloom; also, what culture and soil best suit the Violet *Erythronium Americanum*. I have many roots of the Russian and Neapolitan Violets, both in pots and in the borders; but they throw out little or no bloom, while the plants look healthy and vigorous, and increase in leaf, and root rapidly. I shall be glad to know, through the same medium, whether it is advisable to prune the Honeysuckle (*Lonicera flexuosa*), when it has attained a great height against a wall; and if so, how, and in what months. Also, which is considered the very best time of the year to prune Roses, as I find around us various opinions as to which is the best, both among gardeners and amateurs; and whether they should be pruned to one or two eyes; also, whether the Moss, Yellow, Noisette, Bersault, Scotch, China, Banksia, &c. require each a separate mode of treatment. Being a very great lover and admirer of Roses, and anxious to see them bloom luxuriantly, I am very desirous of finding out the best mode of treatment. Can you inform me why the Azaleas, and indeed all the American plants I have purchased from various nurserymen in this neighbourhood, (viz. Basingstoke, Winchester, and Southampton,) such as Rhododendrons, Kalmias, Daphnes, and Magnolias, are covered with moss, look shabby when they arrive, the leaves (especially of the white and pink Azalea) turning yellow and sickly, and never do well with us, though we have been at the expense of getting bog soil for them from a considerable distance. I want likewise to know how old the *Chimonanthus fragrans* (or, as some call it, *Calycanthus praecox*) must be, before it will produce flowers. I have three, all more than three years old, which have not borne one bloom yet.—I have also a double Pomegranate, from PAGE's nursery, Southampton, which has been in our garden three years, but has never blossomed. I have attended to the advice given in one of the Numbers of your useful and entertaining work, and it has never been pruned. Is there a sort which does not bloom?—I have been long anxiously looking for the promised drawings of greenhouses, which the Editor of the *Floricultural Cabinet* long since promised to his subscribers and the public. An early answer to the above floricultural queries will oblige.

Canover, Jan. 23rd, 1836.

C. S.

[The plates will be given in due course, plans of gardens having been solicited.—CONDUCTOR.]

ON CAMELLIAS IN THE OPEN AIR.—Are yours the double or single-flow. ering Camellias growing in the open air in the grounds at Wortley?

FLORA.

[Double white, red, and striped.—CONDUCTOR.]

ANSWERS.

ON PROPAGATING THE BAY TREE.—In reply to a correspondent, I beg to say that I have propagated the Bay-tree both by *layers* and *seed*; but should prefer the latter method, as the leaf is much larger. R. T. W. T.

ON ECCEMOCARPUS SCABER, MAURANDIA BARCLAYANA, &c.—In answer to the question of CATARINA MARIA AND T., concerning the flowering of *Maurandia Barclayana* and *Ecceiocarpus scaber*, an amateur begs leave to state, that these plants will not fail to succeed in a warm aspect and a fair share of tolerably light, good soil. It is a very common mistake with amateurs, who purchase a plant which they are told will grow *out of doors*, to think that it will grow in *any* situation. Thus, if a creeper, it is often placed against a wall, in a narrow space between two fruit trees, where, if it has sun to its leaves, it has no moisture to its roots; or, being intended to cover an unsightly wall, it is put into the ground at the bottom of it, under every disadvantage for want of warmth, light, and air, and is never likely to reach the top, except in the owner's imagination. My experience of the *Maurandia Barclayana* leads me to believe, that it cannot fail to bloom well out of doors, if it has a good share of sun, and is planted out in the ground. In very hot weather (my *Maurandia* being in a full south aspect), I have found it useful to put moss about the root to keep it moist. The *Ecceiocarpus* will grow and flower well in a less warm situation, but it must have a tolerably rich soil, room, and a free circulation of air. Plants which are not generally found hardy enough to stand our winters in the open air, require as much of the warmth of our summers as possible, to bring them to any thing like perfection. Slips of the *Maurandia* are easily struck in summer, even without a glass, by placing the pot in which they have been planted in a warm spot, under the shade of some leafy plant, care being taken that they do not droop for want of water. The young plants may be preserved during the winter in a warm room or light frame. Such as have flourished well during the summer, in the open ground, will most likely stand the winter, if matted up before very severe frosts. I have known the *Ecceiocarpus* against a north wall, to live without any protection for the last three years. A. B. L.

ON GROWING DWARF PLANTS OF CHRYSANTHEMUMS, &c.—In the Number for January, 1835, of your excellent *Cabinet*, H. PATTEN enquires (page 22) for the best methods for growing dwarf *Chrysanthemums*. Now the way in which I succeeded admirably this year was, to take the shoots about the second or third week in July, strip all the leaves off within a short distance from the top; then having procured some strong packthread, tie it very tight below about the fourth joint from which the leaves were taken off; the shoot thus prepared is introduced through the bottom of a small pot, taking care to let the part round which the string is tied be within the pot; then fill up with good rich compost, placing a little moss on the top, and giving abundance of water every day. The pot may be kept in its place by running a stick straight through the bottom into the ground: the plants will be rooted in about three weeks or a month. AN ENQUIRER in the Number for Feb. 1835 (page 43) will find the British Hybrid *Chrysanthemums*, raised by WHEELER, of Oxford, very good, particularly the Expanded Crimson Wheelerianum, Blood Red Incurving Pink, Dwarf Bush, and Grooved Red. They have flowered very fine with me this year: he will be able to procure them by applying to Mr. HUMPHREY'S, Nurseryman, St. Giles's, Oxford. The way in which I would recommend A SUBSCRIBER, in the same page as

he above, to treat his *Cyclamens*, is to turn them out into a bed of good soil as soon as the frosts in May will permit; and repot them in the autumn. I have had plants with as many as fifty flowers out at once on plants treated in this way. The seed should be sown as soon as ripe in shallow pots. Let the soil in the bed be a good sandy loam. I generally put a little sandy peat with the soil in the pots. T. B.

ON A DWARF YELLOW FLOWERING PLANT.—In Vol. I. p. 210, AMICUS requests to know what yellow creeping plant would answer his purpose. I beg to recommend *Lysimachia nummularia*, (Moneywort,) a favourite of mine, neglected, perhaps, because a native. I have no doubt that it may be easily obtained, for when it once has possession, it takes care not to quit, particularly if the soil be moist. R.

ROSE BUDDEN ON A BLACK CURRANT BUSH.—In Vol. III. p. 21, FLOS. FERRARIA begs to know if it be true that by grafting a rose on a black currant bush, the colour will be changed? To the greater number of your subscribers it may appear idle to answer the question; but as it is one of vulgar belief, it may perhaps be well to shew why it is impossible. The rose and the currant are of two different natural families; no union can take place between plants of different natural families, in whatever way the graft may be inserted: but even were it possible to unite such dissimilar plants, the stock can by no means be made to influence the colour of the grafted flower, further than affording a greater or less degree of nourishment, in the same manner as a richer or poorer soil would do. R.

[We admitted the Query into the *Cabinet*, solely with a view for such an absurdity, so generally believed, to be refuted.—CONDUCTOR.]

REMARKS.

ON PINKS.—I see in your *Cabinet* a little bit of unfriendly advice given by Mr. T. CONNELLY, of Lancaster, to Mr. SMITH, of Faversham. It requires no notice from me as far as Mr. SMITH is concerned, as he is too good a judge of Pinks to be misled by it, but you have other readers not so well acquainted with them; therefore, to them I would particularly address myself. I shall begin with advising them on no account to grow any one of the sorts Mr. T. CONNELLY has, in his infinite wisdom and judgment, selected as the best flowers in England: they are all single, or eight petalled flowers, with three small triangular petals in the centre to form the crown. Mr. C. tells him they are large and superior, whereas they are quite the reverse, as I believe it to be impossible to grow any one of them more than two inches in diameter. He says, "they are well faced,"—admitted,—and have rose shaped leaves. Impossible: or how are they to be inserted into the calyx?—but I suppose he means their edges are even like the petal of a Rose; if so, that is not true, as what is called a rose edged Pink is a very different sort of thing to any he has named. Again: "When properly grown, they never burst." Monstrous! Why, a mouse running through the Thames Tunnel would be just as likely to rip it up, as Mr. CONNELLY's Pinks with eight petals are to burst a pod they cannot fill! Mr. CONNELLY then tells Mr. SMITH he never saw a South-of-England-raised Pink worth growing. I question if he ever saw one at all, or he would never have ventured such an assertion. That Mr. CONNELLY may see there are such things as good Pinks raised in the South of England, let him hand over the *needle* to Hogg, of Paddington, with an order for the following sorts:—Hogg's Fanny Kemble, White's William the Fourth, Barrett's Conqueror, Prior's Miss Blackstone, Wells's Sultan, and Church's Helen. These, if he grow them properly, will at once let him into the light of what properties constitute a good Pink, both as regards size, colour, number of petals, and rose edged flowers. And if Mr. CONNELLY would like to see a few of extraordinary size, let him get Unsworth's Omega, Hopkin's One-of-the-Ring,

Mann's Duchess of Buckingham, Davey's Britannia, Wood's King of Roses, and Reynolds's Adcluide. These are fine large flowers, possessed of the best properties, and growing at least three inches in diameter. I will venture to say, that a single petal of Hopkins's One-of-the-Ring will completely cover a whole bloom of Bow's Cato, that *beau idéal* of a Pink of you northern growers.

INNOVATOR.

1836.

ON PINKS.—In perusing your *Floricultural Cabinet* for October last, I find in page 235 a few remarks on Pinks, &c. by Mr. SMITH, of Faversham, in Kent. I feel great pleasure in replying to his observations, heartily concurring with him in wishing you a "very extended circulation"; feeling also surprise, indignation, and shame, on finding there should be any one base enough to rob a grower of his fair fame, by representing under a false name a flower as his own, which has been raised and grown by another person: any one guilty of such an act, should be excluded from all Florists' Societies. I observe that Mr. SMITH states he has been a Pink grower for the last twenty years, and has won the first prize many times, of which statement I have not the least doubt. He also says that he has more than *once* advertised to show against all Kent. I shall feel obliged if Mr. SMITH will be kind enough to state when, and where, feeling assured, that had his advertisements been seen, there are many gentlemen connected with the Woolwich Society, who would have backed the Woolwich Pink growers against any town in England; and Mr. SMITH would not have gone without a competitor. Should that gentleman feel disposed again to show with any man in Kent, on making the same known to me, he will find his *challenge accepted*.—I perfectly agree with his observations relative to the size of Pinks as stated by INNOVATOR. I have seen many very large Pinks, but there was neither beauty, form, nor any thing in them, worthy the notice of a florist. In answer to Mr. SMITH'S inquiries where he can get the new and first-rate sorts, I respectfully beg to inform him, he will not find a better collection of Pinks in the kingdom than at Woolwich, and I further beg to state, that I have three new sorts to be sold out next September, the first named the Victorious, the second, the Triumphant; the third I have not yet named. Not wishing to speak in praise of the quality of the flower myself, I beg to refer him to the following approved judges, viz. Mr. NICHOLS, and Mr. SMITH, of Wadworth; Mr. MORREY, of Holloway; and Mr. COLEMAN, of Welling,—who saw the flowers in bloom last season, and can speak to their quality, &c.; merely observing, that Mr. SMITH, of Wadworth, says, "there was never raised by one man, in any one year, three flowers to equal them." A respectable artist has kindly offered to give me a drawing of them: if so, I shall feel great pleasure in presenting the same to the *Floricultural Cabinet*.—In answer to Mr. SMITH'S last question, concerning the protection of Dahlias from the ant, I beg to reply, give them plenty of water, and the ants will quickly disappear. Being a *London* grower myself, I shall feel obliged if he can furnish me with a remedy against cut-worms and earwigs.

THOS. HERBT.

Mount Pleasant, Bull Fields, Woolwich, Jan. 14, 1836.

P.S. In reviewing a former Number of your *Cabinet*, I could see great room for improvement in the mode of cultivating Pinks, having grown from 5,000 to 6,000 annually, upon a plan which will not require so much ground by one-fourth, nor so many glasses by one-fourth, as mentioned in a former Number of the *Cabinet*. The method I adopt I will transcribe in the course of next month.

* [We shall be obliged by the promised favours.—CONDUCTOR.]

ON MR. RIVERS'S LIST OF ROSES, &c. I have observed with regret that although 10 pages of your valuable little work have already been devoted to Lists of Roses, we are still in want of a catalogue which will convey all the required information. The alphabetical catalogue of St. Patrick (Mr. Woods's List) would have appeared with more grace among its fellow advertisements, rather than in the body of the work; and I am afraid that the List of Mr.

RIVERS, jun. will fall under the same category. Mr. RIVERS does make some attempts at arrangement, but unfortunately no single principle is followed: at one time it is according to natural affinity, as in China Roses; at another, according to habit, as Climbing Roses; another time of flowering, as Autumnal Roses; another, scent, as *Rosa Indica Odorata*; another, size, as Miss Lawrence's Rose, &c.—Now, had this occurred in a "Price Catalogue," no complaint could have been made; although it might have been regretted: but in the body of your work it is a blot, defeating the end proposed by its publication—instruction, by the occupancy of the place of more valuable matter, and perhaps preventing some person from complying with the request for a correct list of Roses according to natural arrangement, with notices of cultivation, propagation, &c. It is not of very difficult accomplishment. The article *Rosa* in London's Catalogue (*Hort. Brit.*) may serve as a guide to the plan. Although I have thus ventured, in what may appear unnecessary severity in my observations on Mr. RIVERS's paper, I have not been insensible to the excellent remarks made by him at the end of each division of his arrangement; and regretted extremely, that a person who appears to possess so great a capability of fulfilling the object required, should have sacrificed it to minor considerations. Perhaps he will yet comply with the request; and if he should, I think that your subscribers will not have to complain that I have occupied so much of your publication by my complaints.

[We hope Mr. RIVERS or Mr. WOOD will comply with the request of our Correspondent.—CONDUCTOR.]

ON THE SALE OF ROSES, &c.—I see in your last month's Number, Mr. RIVERS's observations on the sale of Roses by auction. I beg to say I differ entirely from him: I think they have done a great deal of good: they have brought into notice many new varieties which otherwise would not have been known; and if a higher price was given for them, it was open to the purchaser to offer what he pleased. I bought from the same stock, and so did Mr. RIVERS; and taking his own argument, it is impossible, with the very dry season we have had, to judge fairly of the early blowing Roses: for if George the Fourth and the Tuscany have changed in some situations, so as not to be known, (but which, by the bye, did not happen with me,) what must be the effect on plants planted in May? I have seen many of the autumnal flowering Roses, and, in justice, I must say they are very fine. Among others, I saw a very handsome parterre of them at Isleworth, near London. Having resided twelve years in France, I can affirm, that nothing can exceed the beauty of their Roses. It was this which first induced me to establish my Rose gardens in England. We are indebted to the French cultivators for nearly the whole of our new and beautiful Roses. I wish to see all the lovers and growers of Roses joined in friendship, and deserved merit, from whatever country it comes, encouraged. The world is wide enough for us all.

WILLIAM WOOD.

Woodlands Nursery, Maresfield, Dec. 10th, 1835.

If you think the following communication worth mentioning in your useful miscellany, the *Floricultural Cabinet*, it is at your service; perhaps it is a desideratum not much attended to amongst florists, the raising that beautiful flower the Chinese Chrysanthemum from seed, as the seed is difficult to obtain, and not easily recognised; but that they may be so raised, and made to flower as an annual, the following facts will demonstrate. A Mr. ROBERT FREESTON, Gardener to W. BRETTON, Esq. near Holt, Norfolk, has this year raised a great variety, which to an Amateur need only be seen to be admired. One a pure white, very double, and the petals naturally arranged in exquisite order, shaped like a double white Camellia; another a fine changeable buff, well formed; a third, a beautiful fine white, with petals so small and thick set, that it has the appearance as if covered with snow; with many others, beautiful in colours, though not formed so compactly, all of which will be offered for sale next year; perhaps Mr. F. is the only man in this country that has made them flower the first year.

Holt, Norfolk, Dec. 1835.

JOHN CARR.

CHALLENGE TO RANUNCULUS GROWERS!—The Members of the East London Ranuncula Society, held at the Salmon and Ball Tavern, Cambridge Heath-road, London, challenge any six Ranunculus growers in England to exhibit, on the 13th June next, six pans of Ranunculus, each pan to contain twelve dissimilar varieties, and to be of their own property and growth, for the sum of twenty pounds or upwards: all communications to be addressed (post-paid) to Mr. C. D. DANDY, Secretary, at the above Tavern.—This challenge is not given with any invidious feeling, but in the hope of bringing this beautiful and much-neglected class of flowers into notice, considering open and honourable rivalry the best method of attaining that end.

ON OBTAINING SELECT KINDS OF FLOWERS, &c.—I send the plan of a small flower-garden, should you deem it worth insertion. When the beds are laid in good turf, the effect is very good. I think of having one department of my garden so laid in the spring (unless a better plan appears before that time). Perhaps you will favour me with a list of what flowers would have the best effect in planting the beds. I shall also feel obliged if you will inform me at what nursery or seedsman's in Town I could procure roots of the *Gaulardia picta*, and new Russian Violet, and the price per root. I am very fond of gardening, and living retired, it forms my chief amusement; but I reside in a place very unfavourable for improvement. The love of flowers is not general here, nor is there a good nursery garden within twenty miles. What Florists' Shows are held in the neighbourhood are far from good. Plants which have long been common in Town and its vicinity are not to be seen here: for instance, I have never yet seen a *Calceolaria* in this part of the country. What new plants I get are rendered very expensive by the carriage, and often die—I suppose from change of soil. I have often thought that a plan might be devised by some respectable nurseryman in the neighbourhood of Town, by opening a subscription of moderate amount for country amateurs, and at the end of a year to distribute among the subscribers such plants (not exactly common ones) as they often have a superabundance of, after their customers are supplied, and which are raised by them with little trouble from seeds, cuttings, &c. Perhaps your experience will enable you to devise some plan. Do not think I wish to turn censor when I say, that like some other correspondents, I have felt sorry to observe so much room devoted to the Exhibitions of Florists' Societies, because I have thought that more instructive matter could have occupied the space.

Buckinghamshire, December, 1835.

LOUISA HARRIET.

ON SECURING CARNATIONS FROM SNAILS, &c.—Mr. Hogg, in his treatise on the Carnation, says,—“Mr. NICHOL, in his *Gardener's Calendar*, recommends a pencil or small brush dipped in oil, and drawn round the pot near the bottom *once or twice a week*, when the plants are in bloom, to prevent snails or earwigs from climbing up and doing injury to the plants.” Now as this must be attended with a great deal of trouble, and would consume more time than could be spared by many amateurs, I would suggest the filling of the pans in which the stage is supposed to be placed, with *oil* instead of *water*. The expense would be little or nothing more than Mr. NICHOL's plan, and there would be no time wasted. I likewise think the plan might be extended to Dahlias, where the Hygrave slug-preventer is used. Mr. H. likewise mentions, that *sweet oil* coming in contact with the body of any insect, causes its immediate death. Query—Would not any other sort of oil have the same effect?

JUVENIS.

Canonbury, 4th February, 1835.

ON COLLAR STANDS FOR DAHLIAS.—I wish to mention, through the medium of your Magazine, a suggestion of mine respecting the collars used for Dahlias. It is simply this—that they should be glazed inside, similar to common flower-saucers.

JUVENIS.

ON PENDULOUS GROWING TREES.—Excuse me if, through your useful and widely circulated *Cabinet*, I intrude an observation or two on pendulous trees, as I am often astonished to find so small a number generally grown,

when so many more are equally graceful with them. *Æsculus pendula*, budded six feet high, is very beautiful; *Amygdalus pendula*, a very fine one, if six feet high; *Betula alba pendula*; *Cotoneaster nummularia*, if grafted six feet high, is very fine; *Crataegus Georgica*, the same; *C. pendula*; *Cytisus laburnum pendulus*; *C. capitatus*, *C. decumbens*, *C. aralensis*, grafted on *Laburnum*; *Fagus sylvatica pendula*; *Fraxinus lentiscifolia pendula*, very fine; *Populus pendula*; *Prunus Chinensis pleno pendula*, if grafted six feet high, looks well; *Pyrus communis pendula*; *Quercus pendula*; *Robinia pendula*; *Sophora Japonica pendula*; *Tilia pendula*; *Ulmus pendula*; *Abies pendula*; *Larix pendula*; *Pinus Fraseri*; *Cupressus pendula*; *Juniperus repanda*. Some of these are new, and very scarce; they may be obtained at some public nurseries—without doubt from the extensive collection of Messrs. LONDRES, at Hackney, which is certainly the largest in the country. N. Y.—ARBORETUM.

Jan 6th, 1836.

LAVATERA THURINGIACA. Monodelphia Polyandria. Malvaceæ.—This lovely plant is worthy of the most extensive cultivation, and deserving a place in every flower garden. It forms a fine bush when planted singly, being covered with a profusion of large expanded pink and lilac flowers from May to November, and growing to the height of from four to six feet. I have had some splendid specimens of this beautiful plant in flower the whole of the summer, which have been greatly admired, but I am sorry to say it is so little cultivated, as seldom to be seen except in general collections. Propagated by cuttings or seed. J. W. D.

Great Bookham, Surrey, Dec. 13, 1835.

REFERENCE TO THE EMBELLISHMENTS.

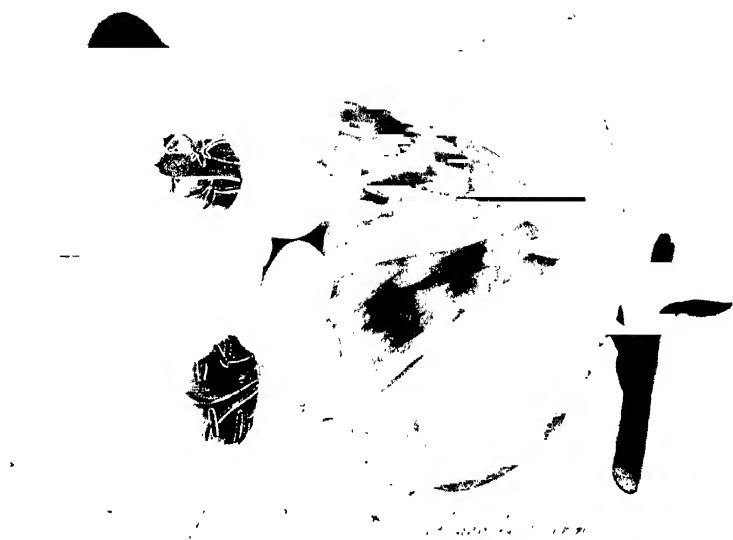
1. *Bignonia Chereke*.—This very splendid, climbing, flowering plant, is a native of Guiana, where it was found by M. ACUTER. It is a showy plant for a conservatory or greenhouse, if planted out into a space having plenty of room to root in. If so cultivated, it will climb to a great extent, and produce numerous racemes of magnificent flowers. Each raceme generally producing from six to ten flowers upon each. It merits a situation in every greenhouse or conservatory. The plant blooms from May to August. It is readily increased by cuttings. And may be obtained of most of the principal nurserymen. The natives of Guiana make baskets and broad brimmed hats, of the flexible shoots of this plant. *Bignonia*, in compliment to Abbe BIGNON, Librarian to Louis XIV. King of France. Chereke, after B. CHEREKE.

2. *Phlox Drummondii*.—MR. DRUMMONDS. A very splendid flowering annual *Phlox* introduced last year from Texas. Our drawing was taken from a small specimen sent us. A large figure of it was given in the *Botanical Magazine* for last November. The plant deserves a place in every flower garden. It is a most profuse bloomer. The stems rise about a foot high, and blossom for a long time during summer. It will, doubtless, soon be in the possession of the public seedsmen, nurserymen, &c.

3. *Canavalia bonariensis*.—A very handsome hot house climbing plant, blooming a great part of summer. The flowers are produced in profusion, upon pendulous racemes, six or eight inches long; making a most graceful and showy appearance. The plant grows freely, and climbs to a great length, if in a rich loamy soil. It is a native of Buenos Ayres. It deserves a place in every hot-house. Messrs. YOUNG, of Epsom, possess plants of this lovely climber.

FLORICULTURAL CALENDAR FOR MARCH.

We refer our readers to Vol. I. pages 21, 23, 32, 43, and 48; to Vol. II. 72; and Vol. III. 72, for directions as to what is necessary to be attended to this month.



Adiantum latifolium L.



Adiantum latifolium L.



Adiantum latifolium L.

should be shortened, leaving them from four to ten feet high; by this method the blooming season is prolonged, and finer clusters of blossoms are produced.

The Perpetual, or the Four Seasons Roses, require very rich soil, which may readily be made so by manure, and improved by plentiful supplies of manure water in August and September. The flower buds which grow in June and July, should be cut off ere they burst into bloom, and in winter, pruned as closely in as those designated Garden Roses. If a sheltered situation can be given, it is a great advantage, as the cold winds in September and October have a bad effect on the opening buds, at that season. In a soil naturally wet, the beds should be drained, as too much moisture at the roots in the time of flowering, is also injurious. This class is worthy of a little extra trouble, being so splendid when well grown.

The Climbers, for pyramids and arches, require an opposite treatment with the knife, for if pruned after the manner of other Roses, they can never produce many flowers. Two or more stems should be grown as long and strong as possible, by very rich soil; at least half a barrow of well rotted dung for one, at first planting, and half that quantity every succeeding year. When the stems get too numerous, (say from seven to ten,) cut out one or two of the weakest every winter, and shorten the largest lateral branches, to keep them in that form the owner's taste may require.

The Odorata, or by some termed the Tea-scented Roses, will grow best on an elevated bed, well sheltered from the north and west. And if the ground has at all a tendency to retain wet, the sub-stratum should be made with broken stones, six inches thick, and the bed raised from fifteen to twenty inches above the level of the garden. They require but little pruning, besides cutting out the dead wood; and if taken up in autumn, potted, and put into a frame, or covered with a hand glass in the bed where they grow, will do much better than if exposed all winter. While the plants are weak, part of the flower buds should be cut off, as they frequently flower themselves to death.

STANDARD ROSES.—These require the eye of the gardener frequently upon them, to cut off the wild suckers and branches as they make their appearance. Great care should be taken in the winter pruning to make the heads as proportionate as possible, for

if a greater number of branches, or stronger wood, be permitted to remain on one side than the other, the tree becomes deformed. This is of importance, for by a neglect of one or two seasons, a good form is irrecoverably lost: likewise, the shorter the branches are cut, the better they bloom.

From the above remarks it will be readily seen, that to prune all kinds of Rose trees after one method, would be highly improper; and that if done, it would cause some of the best kinds to be worthless.

WILLIAM BARRATT.

ARTICLE II.—*On Forcing Roses.* By A DEVONIAN.

After the clear statement of the best method of forcing Roses, made by Messrs. Wood and Willis in the First Number of the second volume of the *Cabinet*, a request for further information may seem almost unnecessary; but I am anxious to have a few more hints on the same subject. In the first place, it is not in the power of all florists to treat the plants in the manner recommended by the former gentleman, as a hothed on the plan described by him cannot always be procured. The plan of the latter is likewise open to objection, as few amateurs have hothouses so numerous as to admit of their moving their plants from one degree of heat to a greater—and, without removing them, the increased temperature required for the Roses might prove highly injurious to other plants in the same house. What I am, therefore, desirous of knowing is, whether it is possible to have fine forced Roses late in December, and during the months of January, February, and March, with the accommodation of one hothouse, which is appropriated to the culture of the usual stove plants. A minute account of the treatment to be pursued is earnestly requested, which I doubt not some experienced Rose cultivator will accede to. I once attempted to force some Roses in the bark-bed of a warm greenhouse, but I failed completely, the plants only producing a few sickly blossoms of the smallest size. The Roses were plunged in the bark in the month of January, but the flowers were not produced much before the usual blooming season in June. In addition to the information already asked, I am anxious to know if the plants will bear being removed to a conservatory, after

the blossoms are produced, or whether their blooming will be checked by their being submitted to the lower temperature requisite for flowering Camellias, &c. &c. I wish also to know whether Moss, Provence, and other summer Roses can be induced to bloom as freely as Noisette, Perpetual, China, Tea-scented, and La de Bourbon Roses. Perhaps the kindness of the correspondent who replies to these queries, will be further displayed in giving me a few names of the best Roses for forcing. Messrs. BRUNN, in their new Catalogue, recommend the Dog Rose, from its easily excitable habit, as the stock on which Roses, for forcing, should be worked: what height should the stock be, to display the flowers to advantage?

A few hints on forcing the Persian Lilac, or any other plants calculated to add to the beauty of a conservatory in early spring, would also be very acceptable.

My last queries respecting conservatory shrubs and climbers, have not been answered: a reply is much wished for, and an early answer to the present is solicited.

Jan. 29th, 1836.

A DEVONIAN.

ARTICLE III.—On Raising New Varieties of the *Mimulus*. By CALCEOLARIA.

Though I cannot answer "T. P." and "A Lawyer's Clerk" as satisfactorily as I could wish, yet I can put them in a way of obtaining several varieties of *Mimulus* without much expense. Let them get seeds of the different sorts advertised in your last number by CHARLWOOD and WARNER, and sow each variety as soon now as possible in a seed-pan (which should be about a foot in diameter, and four inches deep, with four or five holes in the bottom). Place the pans in a greenhouse, hotbed, or even warm window in the dwelling-house, and the young plants will soon make their appearance; give them plenty of air by day, when the weather is tolerable, and early in June prick them out in patches in the flower-garden, where they will flower all the autumn. I adopted this plan last year with two varieties I obtained from CHARLWOOD—*variegata* and *rosea*; and though the former were all execrable, the latter amply repaid me, for one small packet

seed produced several very pretty and distinct varieties, some with white grounds, others with yellow, and all marked with spots of purple or brown of different shades and form. From these I selected a collection for the greenhouse, thinking the winter would destroy them in the open air; but I am happy to say that those I left in the garden are now looking very well, not the least injured by the frost. I also inoculated a few of the finest flowers, which produced seed abundantly; this I sowed in October, and have now some fine young plants in pans, which, with my seedling *Calceolarias* sowed at the same time, I expect will afford me some little gratification this summer.

Mimulus should be frequently watered in summer, and if in pots, they should have a pan of water always under them: indeed, a neighbour of mine tells me they may be planted in a small stream of water, where they will grow like *Water Cresses*, and produce a very beautiful effect.

CALECOLARIA.

Feb. 11th, 1836.

ARTICLE IV.—*On Destroying Earwigs, &c.* By HENRIETTA.

In your October number, "A Subscriber" reiterates the query of several correspondents—"What is the best mode of destroying the wireworm?" In reply, I beg to suggest the very simple and efficacious remedy first recommended by Sir JOSEPH BANKS, viz.; Let slices of potatoes notched narrowly in three or four places and stuck upon skewers, be buried just below the surface of the mould in your *Carnation* pots; they should be examined every morning, and the wireworms, which will collect upon them, be destroyed. *Ranunculus* beds may likewise be preserved from their ravages in a similar manner. Speaking of this destructive vermin, HOGG says, "Destroy this pest by every means in your power." They are generally to be found in new earth that has not been broken up for some time, and I would sooner employ a man for a fortnight to go over the whole by handfuls with a trowel, than run the risk of losing treble the amount of his wages in *Carnations*, to say nothing of the disappointment.

Earwigs.—"Dianthus" sometime ago recommended the use of

near the top of the stock as may be, so as to have them capable of forming a desirable head.

If, after this regulation of shoots, any others push, they must be rubbed off at the earliest stage; and should any suckers appear, they must be carefully taken away. To guard against injury from the above casualties, or by insects, the stocks must from time to time be looked over: sometimes slugs or caterpillars will creep up, and eat off the tender points of the shoots, or otherwise damage them, so as to cause the head to be deformed.

If the stocks had good roots, and were attended to in collecting, conveying, planting, securing, and regulating, by removing useless shoots, those retained will soon push forth vigorous shoots. It will be necessary then to look them over, in order to see if any particular shoot is growing far more robust than the others, and thus robbing them of support; such a shoot must have the end pinched off, in order to throw the sap into the others, that they may become of a similar size.

Nothing more will be required than observing the above-named regulations till July, excepting a very droughty season occurs, in which case a supply of water occasionally to the roots would assist the plants to grow suitably.

My next observations will comprise the operation of budding, which shall be sent in due time for the May or June *Cabinet*.

March 4th, 1836.

ROSA.

ARTICLE VII.—*On Pruning the Garden Varieties of Roses.* By ROSA.

Having paid considerable attention to the culture of the Garden Rose, as already stated in my observations at the commencement of my Article on the Tree Rose, I send a few hints on pruning, the result of my own observation, and the method I now pursue.

The period of pruning should be deferred till towards spring, say the early part of March; but as it may be desirable to have some later than others, and thus prolong the season, I leave a selection for the attainment of that object, to be pruned at the end of March, or even in April; so that by allowing the end buds to push shoots an inch long, the buds at the lower part of a shoot

of the previous year's wood are not excited, when I cut away the upper portion which have pushed; the remainder do so afterwards, and cause the bloom to be three weeks later than would have been the case had they been pruned finally at the usual time of pruning.

In pruning in the shoots of last year's wood, I cut away all but portion of each, so as to leave only two of the lowest buds. These buds are always indicated by a small ring round the shoot. Two such buds are quite enough to leave to every shoot retained of last year's wood, being quite sufficient to occupy the sap, and keep the tree in desirable bounds; besides the shoots will be much stronger, and the Roses in proportion larger. This mode of cutting in the shoots generally causes the production of suckers; and as a portion of the old wood must each year be taken away, either wholly or in part, such suckers of young wood make a suitable supply, and thus the bush is kept young; whereas by allowing the last year's shoots to be kept long, encouragement is given to cause the tree to push rapidly upwards, and become naked and unsightly below, which is never the case with mine.

In cutting away a portion of a shoot, I cut nearly to the uppermost bud I leave; so that not one-eighth of an inch of old wood is above it, and thus the wound heals up closely with the new shoot.

The slovenly practice of omitting to cut a Rose-tree more than once in several years, has come under my observation: the irregularity and naked bushes were quite unsightly, and when cut down low to obtain a new head, they refused to push forth shoots. A plant omitted for only a single season, loses its proper form for that year, and will not bloom near so well.

ROSA.

ARTICLE VIII.—*On the Culture of the Ranunculus.*

By R.

My mode of growing the *Ranunculus* has been invariably successful. It being also very simple, I forward it for insertion in the *Cabinet*.

I have a suitable situation in my garden fixed upon. The old soil is taken out to the depth of twelve inches; when that is cleared out, I lay four inches thick of well-rotted old hothed dung and

well-sorted cow-dung, which had lain on a heap a year and a half. ~~Upon this~~ I cast about a foot deep of yellow maiden soil, from a pasture field. It was a good, rich, natural loam. I mixed no ~~mixture~~ with it. I have planted both in November and in February, March, April, and May, with equal success. I have the bed prepared a month before I plant, to admit of settling. I renew the soil and dung every season. I plant the roots about an inch and a half deep,—that is, the crown so much covered. Previous to planting, I have the bed made even, and gently beat with a suitable flat spade. After planting, I beat the surface freely, to close the soil well round the roots. When the soil between the rows gets “baked,” as it is termed, I have it carefully loosened with a pointed piece of wood. This operation is repeated as often as the surface becomes too close. In a soil of this kind, and planted as I have done, I never have failed of a fine bloom, and the colours are exceedingly clear and distinct. There has never been occasion to water the beds more than twice in a dry season. When I have given them any, I have done it so as to reach the bottom of each. My roots get very plump, and keep healthy with such treatment. I take them up when the foliage begins to yellow, and keep them in small bags, laid on ribbed shelves in a drawer. I am confident that if the same plan be practised with this most lovely flowering plant, satisfactory results will attend it.

Manchester, March 7th, 1836.

R.

ARTICLE IX.—*Gleanings from Old Authors. No. III.*

By TULIPA.

As the Tulip season is advancing, perhaps the following extracts (from *Rea's Flora*, 1676) may be amusing to some of your curious readers who are not acquainted with the work.

“The division of Tulips according to Gerrard, Parkinson, Clusius, and Perrarius, is into three sorts—*Præcoces*, *Medias*, and *Serotinas*; early, middle, and late-flowering Tulips; whereas there are but two primary distinct kinds, *Præcoces* and *Serotinas*.”

The following is the manner of his description of the named Tulip flowers, and of which there are about 179, (viz. *Præcoces*, 36; *Medias*, 134; *Serotinas*, 9,) besides those he does not describe. I have selected two only, both of which I have.

"Semper Augustus, heretofore of much esteem, hath a flower not very large, but well veined and striped with deep crimson and pale yellow, the bottom and tains dark violet purple."

"Royal Vesta, or Nonpare, is a better and more constant flower than the last (viz. Vesta). The colours are carnation, crimson, and white. When the flower makes well, the bottom is white and the tains blew."

"For various colours Tulips most excell,
And some Anemonies do please as well;
Ranunculus in richest scarlets shine,
And Bear's-ear* may with these in beauty joyn;
But yet if ask and have were in my power,
Next to the Rose give me the July flower."

The above few lines are written at the close of the article on July flowers, and it appears that at that period the supply for the growers were brought from Holland, Flanders, and other parts of the Netherlands. He inserts a list of 360 by name, and says,—
"Multitudes of these (seedlings) are often brought over to London, and there sold at mean rates to gardeners, who sell them again to others who delight in flowers, commonly for 12 pence a layer; but most of these mercenary fellows about London are very deceitful, and whoever trusts is sure to be deceived, as I myself have often been, even by such of them as I had by many benefits obliged."

"I have heard but of very few good flowers that have been raised of seeds by any in England."

The following is from the *Compleat Florist* (1706):

"Of Sun-flowers or Turnsoles, otherwise called Heliotropes.

"Sun-flower is the true name of this plant, of which I am now treating, and 'tis call'd in Latin *Corona Solis*. We call it Turnsole from an Italian word, which signifies turning it self towards the sun: and Heliotrope, from Heliotropium, deriv'd from *ἥλιος*, which signifies the sun, and from *τροπή*, which is in English 'I turn': the flower of this plant turning it self always towards the sun, because it being heavy, and its stalk heated and soften'd on the side next the sun, it must naturally incline that way.

“ We sow the Sun-flowers of the great sort, but those we call *hardy* are multiplied by their roots, by slitting of the tufts that produce these plants, and of which they always have a quantity sufficient to store us.

“ This plant being of two sorts, take notice, that the first sort of 'em is that which grows extreamly high, and that produces but one stalk ; and that the second is that which is lower ; that shoots many more stalks, and that are much fuller of branches.

“ The first of them is almost laid aside at present ; and if there be any in our gardens, it is generally in a by-place, or at the ends of some borders ; for they would look very ill planted in borders, and would do harm to the flowers that grow near 'em.

“ In regard to the second, you must by no means plant it in any part of your garden : for if the first grows too high, this spreads too much on all sides, and consequently is apt to stifle many flowers that grow round it. The places most proper for them, are great walks, set all along with trees : between which, if we plant these Sun-flowers according to art, and at the distance of at least three foot from one another, they will then look very gracefully.

“ We may likewise place 'em in the middle of the little knots of parterres, but in company with no other flower : supposing always that in this, as well as in all the other works and contrivances relating to gardening, we observe a symmetry, that never fails to give pleasure to the sight.

“ Sun-flowers are contented in all sorts of earths ; good or bad, they know no difference ; and when their roots are slit for increase, they must be put three inches deep in the earth.

“ When the Sun-flowers of the second sort are grown to a middling height, before they have attain'd their full growth we clip with gardning-shears all the branches that grow too much outward, that shoot too far from the main stalk, or that mount too high. The discretion of the workman must guide his hand in taking more or less away, and in giving it the figure that agrees best with it ; which is, in a manner, that of a round bush. The gardner need not give himself much trouble about the culture of this plant ; for without his assistance, Nature alone cultivates it so well, that it produces its flowers in perfection.

“ Sun-flowers, as I have said already, are of two sorts ; one of which shoots out a stalk of at least five or six foot high, very strait

and without branches ; whose leaves are almost as large as those of the Vine, notch'd in their edges, a little pointed at their end, and rough to the feeling.

“ At the top of this stalk grows a beamy flower, whose disk is compos'd of several ranks of yellow leaves plac'd in the shape of a crown, in the midst of which are several other ranks of leaves supported on embryo's, divided one from another by leaves folded up like a gutter, and contain'd in a scaly cup. These embryo's come in time to be oblong seeds, shut up in seed-vessels apart from one another.”

The following is the fabulous account given by the ancient heathens as to the origin of this plant. We have most abundant cause for gratitude that we are favoured with the Holy Scriptures, which give us the correct account of the Being who created all things, and the design therein.

“ I must now relate the love of an unfortunate virgin, whose heart was so wounded with that passion, that death was the only remedy could cure her. Her name was Clytia, and she was fallen so desperately in love with the Sun, that she could not be one moment without seeing him. The Sun, who in those days went by the name of Phœbus, was a handsome young man, and of a charming mien and behaviour ; but he had little regard to the passion of his damsel. She enquir'd every where, whither she might go to see him ofttest ; and hearing at length that the Isle of Rhodes was the place he most frequented, she resolv'd to go thither. But alas ! scarce was she arriv'd in Rhodes, when she heard that Phœbus was in love with another. To what unheard-of grief did she then abandon herself, especially when she was too fully convinc'd of that intrigue, by being an eye-witness of the shower of gold that he caus'd it to rain down, and of the roses that were seen to blow the day of the birth of Rhodia, who was the fruit of that amour. She wept, and bemoan'd her condition, to try if Phœbus would have any regard for her : but perceiving that all was to little purpose, she could no longer resist the ill that oppress'd her, but afflicted herself to that degree, that her grief brought her to the grave. Then Phœbus was touch'd with compassion, and in token of his concern for her, chang'd her into a flower, which he commanded should be call'd Sun-flower, in acknowledgment of the love Clytia bore him.”

TULIPA.

PART II.

REVIEWS AND EXTRACTS.

The Landscape Gardener; comprising the History and Principles of Tasteful Horticulture. By J. DENNIS, B.C.L., Prebendary of the Collegiate Church of Exeter Castle, and Author of "The Key to the Regalia." "Architectura Sacra," &c. &c. 8vo. London, 1835.

The work contains some descriptive remarks on a few Country Seats, and interesting observations on Landscape Gardening. A Map of the newly laid out Gardens at Buckingham Palace, and two Views, taken in the Grounds, and a Map of St. James's Park, with a piece of Water, Island, &c. are contained in the work, all executed in a superior manner. The following extract is taken from the Author's remarks on the distribution of Evergreen Trees, Shrubs, &c. &c.

"If yews be planted in proximity to a mansion, for the sake of valuable shelter from bleak winds, they should not assume a prominent position, but should be interspersed with groups of Weymouth pine or bay, and be faced with laurels of luxuriant growth. By such contrast, the gloom of their dingy leaf is relieved with vivid and glossy green; or, if the contrast appear too strong, it may be mellowed by blending Portugal laurel in an intermediate position. In short, the recommendation cannot be too frequently reiterated, to substitute a studied assortment of tints for tasteless indiscriminate admixture. Let but the pictorial artist be permitted, or the amateur condescend, to transfer his principles of taste, the one from his easel, the other from his gallery, to occasional superintendence of English landscape-gardening, and he would contribute to the production of a living vegetative picture, constituting incalculable improvement in style, and commanding inevitable commendation from the spectator of cultivated taste. Nay, pleasure-grounds thus constructed would excite universal admiration, and impart universal gratification. Picturesque effect, copying and harmonising with natural scenery, elicits pleasurable emotions, even in such as 'know not why, and care not wherefore.' But, for accomplishment of such an important desideratum, science must be suffered to acquire unlimited confidence, in exercise of control; while prejudice must cease to plead for senseless custom, more honoured in the breach than in the observance." An individual proprietor, or a public association, might rest assured of the anticipation of a result decidedly warranting the experiment.

"In resumption of the topic of evergreen trees, for formation of a foreground, it may strongly be recommended, while collecting perennial foliage of every species, to permit each variety of the beautiful *ilex* to predominate. Single or combined, from elegance of shape, delicacy of leaf, and duration of mantling, the *ilex* constitutes an embellishment almost unparalleled, yet too frequently neglected. Of faster growth than the deciduous oak, it attains expansion competent to the gratification of the planter's eye, with not less certainty, in the ordinary calculation of life's duration, than to please and profit posterity. It should, then, on various accounts, abound in the proximity of a decorated mansion, blended with masses of bay, backed by cypresses, yew, and pinaster, and faced with laural, laurestinus, Portugal laurel, privet, phillyree, arbutus, with other flowering or variegated shrubs.

"In similar relative situation, but in prominent advance from trees and unblossomed shrubs, flowering evergreens should invariably rank. Defying 'the icy fang and churlish chiding of the winter's wind,' the gay, cheering, precocious laurestinus anticipates the lingering arrival of an English spring. Tenacious of storage and permanently retentive of foliated decoration, it is entitled to numerical predominance over every blossoming shrub. By seasonable intervention and flowering profusion, it compensates for temporary diminution of ornament, in other component ingredients of a shrubbery, thus transferring to nipping winter's gloom the exhilarating semblance of summer's embellishment. Productive of such interesting impression in pleasing the eye, it certainly merits conspicuousness by prominent position.

"The arbutus is a shrub peculiarly elegant and eligible, from perennial decoration, rapid growth, and superior beauty in shape and tint of leaf, from delicate blossom, and glowing berry. If suffered to remain unpruned, by gaining height, it becomes hollow and leafless beneath, retaining, like other evergreens, only two years' leaves, except about midsummer, when the third year's are annexed, some weeks previous to the decay of the first. If not surrounded by evergreens more stunted in growth, for concealment of its lower leafless branches, it should biennially be deprived of a few long shoots, by application of the pruning-knife, the shears being calculated to render a shrub hideously cabbage-poled. Any shrub judiciously pruned will retain resemblance of its natural form. Artificial treatment should be studiously disguised, and interposition of control be invariably concealed.

"The phillyrea presents striking contrast to the gay or gaudy display of flowering shrubs, being characterised by singular chasteness and unobtrusive simplicity. It is of intermediate tint, diminutive leaf, and moderate growth; consequently is precisely adapted to an advanced position. It will there present a striking contrast to the imposing glare of variegated shrubs, whether holly, aucuba, or others of similar class. Here, too, that lowly, yet cheering, harbinger of spring, the mezereon, should rank, interspersed with contemporaneous masses of hepatica, snowdrop, crocus, red daisy, and other vernal flowers, protected by a wicker fence. The cypress is adapted, by its taper form and elevation, to relieve a structure. The pyracantha, pomegranate, trumpet-pomegranate, white jessamine, but, paramount to all, the elegant tamarisk, supply ornamental covering to a wall. In a sheltered nook, even these may be surpassed by the beautiful single blossomed myrtle. From mildness of climate, it abounds in Devonshire, perhaps in no instance so luxuriantly as in a garden of Mr. Neck's, curate of King's Kerswell, where it acquires considerable size detached from a wall, as well as height when attached. The front of a house at Bishop's-Teington has long been covered to the top by myrtles of forty years' growth, protected from the easterly wind by a wing, and from the westerly by an equal defence, with the advantage of a southern aspect."

The Florist Cultivator, or Plain Directions for the Management of the Principal Florist Flowers, Shrubs, &c. &c. adapted to the Flower-Garden, Shrubby, and Greenhouse; with Select Lists of the finest Roses, Geraniums, Carnations, Pinks, Auriculas, Polyanthus, Tulips, Dahlias, Heartsease, &c. &c. The whole arranged on a plan different from any work hitherto published. By THOMAS WILLATS, Esq., Amateur Cultivator. London: James Ridgway and Sons, 1835. pp. 360.

We give the following extract to our readers as a specimen of the work, which, though not perfection itself, contains some useful directions and descriptions, which doubtless will be improved upon in future editions.

REVIEWS AND EXTRACTS.

498. *LUPINUS POLYPHYLLUS*, var. *ALBIFLORUS*.—*White large-leaved perennial Lupine*.

Class 17th.—*Diadelphia Decandria*.

This beautiful plant is a variety of that deep blue species now so common an ornament of our gardens.

A native of North America, and perpetuates itself by seeds, without varying. It flowers in June.

499. *LOPHOSPERMUM ERUBESCENS*.—*Blushing Lophospermum*.

Class 14th.—*Didynamia Angiosperma*.

This very handsome climber is a native of Mexico.

It grows most luxuriantly during the summer, trained to a wall or treillage; but requires to be protected during winter, that the woody stems may be preserved from the frost, to push forth new flowering branches the succeeding year. It increases so readily by cuttings, that it will soon be generally known. It blows in August.

500. *ROSA RUGA*.—*The Ruga Rose*.

Class 12th.—*Icosandria Polygynia*.

This beautiful variety, as a garden plant, is one of the most valuable that we are acquainted with. It will sometimes grow 10 or 12 feet in the year, and therefore well adapted to scrambling over old pales, or to covering any other place in which a wildness of appearance is desirable. It is full as fragrant as the sweet-scented Chinese Rose, in colour deeper, especially before being fully expanded. It is readily increased by cuttings.

501. *LOASA AMBROSIAEFOLIA*.—*Ambrosia-leaved Loasa*.

Class 13th.—*Polyandria Monogynia*.

This is a very beautiful new Annual, it was placed on the south side of a yaw hedge in the garden of the Horticultural Society, where it grew vigorously, attaining a height of about 2 feet and a half, flowering from July to September, and producing seed freely.

It perished at the first approach of frost.

502. *SEDUM CEREÆ*.—*Panicked Stonecrop*.

Class 10th.—*Decandria Pentagynia*.

It is an Annual, and well adapted to ornamental rock-work. It also grows well in the common border.

It is a native of the South of Europe, and may be seen in the garden of the Horticultural Society.

503. *CALOCHORTUS VENUSTUS*.—*Spotted Calochortus*.

Class 6th.—*Hexandria Monogynia*.

A remarkable and beautiful bulbous plant, which flowers in June; at which season it gives a new feature to the flower garden; it is cultivated without difficulty. The bulb should be kept dry till Christmas, and then planted in a pot and placed in the greenhouse, whence it may be placed in the border till frosts appear. It succeeds well in either loam and sand, or common garden mould. It should be planted in the border the latter end of May, &c. &c.

Last month we noticed the "*New Botanist's Guide*," we now give a specimen of this interesting work. Another on the Geographical Distribution of British Plants, we are informed, is forthcoming. The present volume includes all the counties of England and Wales.

X. MIDDLESEX AND LONDON.

Finding several plants recorded by writers as growing "near London," I have added them to the Middlesex list, although not expressly mentioned to grow within the county. Some few stations, particularly along the Thames-side, are continued in this county from the *Botanist's Guide*, although appearing to be actually in Surrey. Whether any others have been referred to a wrong county I am not aware; but having usually lived far remote from London, I am not well acquainted with the vicinity. It may be supposed that many of the plants formerly found near London, as inserted in the

Botanic's Guide, have been eradicated from the assigned stations by building and alterations. A *Flora Metropolitana*, to exhibit the actual botany of the country round London, would be a valuable addition to our local floras. But the *Collecting-Box*, not the *Library*, must give the materials for drawing up such.

**ANEMONE apennina*. Near Harrow on the Hill. *B. G.*

MYOSURUS minimus. Meadows behind the chapel, and in a lane that goes from Copenhagen House to Kentish Town; Mary-le-Bone Park; Islington; Paddington; Paucras; Edmonton. *B. G.*

RANUNCULUS parviflorus. Hackney, Kentish Town, and several places about London. *B. G.*

†*ADONIS autumnalis*. Among the corn at Acton; frequent about London. *B. G.*

†*HELLEBORUS viridis*. Near Harefield. *Eng. Fl.* Down Barn Hill, near Harrow; in a small wood near Finchley. *B. G.*

**CAMELINA sativa*. Road-side at Stoke Newington; Highgate; Isle of Dogs. *B. G.*

COCHLEARIA anglica. Isle of Dogs. *B. G.*

TEESDALIA nudicaulis. Near Hampton Court, and other places about London. *B. G.*

DENTARIA bulbifera. In the Old Park Wood, near Harefield, abundantly. *Eng. Fl.*

**DRABA muralis*. About Chelsea, probably from gardens. *Br. Fl.*

CARDAMINE amara. River-side at Harefield, and about Uxbridge, plentifully; banks of the Thames between Kew and Mortlake; at Chelsea; Isle of Dogs. *B. G.*

? ——— *impatiens*. "Thames-side, near the Botanic Garden, Chelsea. *Martyn*. There can be little doubt but the following species (*C. amara*) was intended." *B. G.*

NASTURTIUM sylvestre. Tothill Fields, and other low watery situations in the vicinity of the Thames. *Eng. Fl.*

**SISYMBRIUM Irio*. Waltham Green. (Mr. W. Pamplin.) *W. Christy, ap.* I found this plant by the direction of the Rev. G. E. Smith, which has almost totally disappeared of late about Chelsea, &c. It grows by some new houses in a lane near Waltham Green Church, near Fulham. *W. Pamplin, mss.* About Chelsea, and the whole neighbourhood of London; walls at Brompton; about Haggerstone; on a bank opposite Shoreditch Workhouse, &c. *B. G.*

NEW OR RARE PLANTS

WHICH WE HAVE NOTICED SINCE OUR LAST.

1. *Alstromeria aurantiaca*, Orange-flowered. (*Bot. Reg.* 1834.) A very handsome flowering species. The flower stems grow about three feet high, producing heads of numerous flowers. The flowers are of an orange colour spotted with dark. The plant deserves a place in every flower garden. It may be procured from most of the Nurserymen and Florists. It will require a slight protection from the severities of winter, by mulching over the roots, or covering with a hand-glass, &c. Class, Hexandria; order, Monogynia. Natural order, Amaryllidaceæ. *Alstromeria*, from Baron ALSTRÖMER.

2. *Anchusa versicolor*, Changeable flowered Alkanet. (*Bot. Mag.* 3473.) The plant is a hard annual, a native of the Caucasian Alps, producing numerous flowers, which in their early stage are of a rosy-red colour, but when fully expanded change to a bright blue with a yellow eye, diverging into numerous rays of a whitish yellow colour. Each flower is about two-thirds

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A HUNDRED KINDS OF THE BEST SHOW DAHLIAS.—I am very much pleased with the ample lists of Dahlias contained in the *Cabinet*, and to notice that the form and colour of the flower is given so particularly. I possess about twenty sorts, so am a juvenile grower. I have plenty of garden ground, and am desirous of purchasing about one hundred of the best show kinds. Where so many good kinds are advertised, I am at a loss which to fix upon. I shall, therefore, be obliged if the Conductor of the *Cabinet* will give me a selection of about fifty or sixty of the best exhibited last year, to which I might add the remainder out of new kinds coming out this season for the first time.

CLERICS.

— *Vicarage, Cumberland, March 4th, 1836.*

We did not see flowers of all the new kinds now offered for sale, but those we did see well deserve the prices asked. We, therefore, think it reasonable to conclude, that the others are of proportionate merit. We annex a list of about sixty, which we saw, and each of which deserves a place in every select collection. Our Correspondent may rely on them as the then first-rate kinds. The number may be increased to one hundred by selecting the best priced ones in the lists now advertised, and which are not in the following sixty.—CONDUCTOR.

Aeolus (Harris's)	Lord Bath (Wheeler's)
Apollo (Widnall's)	Marchioness (Wheeler's)
Alpha (Simmonds's)	Metropolitan Perfection (Elphinstone's)
Beauty of Telford (Brown's)	Metropolitan Lilac (Elphinstone's)
———— Tooting (Rollison's)	Miss Pinfold (Pothecary's)
———— Cambridge (Brewer's)	———— Wortley (Harrison's)
Bride (Harding's)	Mrs. Wilkinson (Girling's)
———— of Abydos (Penny's)	Napoleon (Smith's)
Canopy (Harris's)	Narcissus (Harris's)
Cedo Nulli (Pothecary's)	Newick Rival (Mantoll's)
Conqueror (Harris's)	Orb (Harris's)
Countess of Sheffield (Mantoll's)	Othello (Widnall's)
Criterion (Douglas's)	Perronia (Salter's)
Drusilla (Wells's)	Picta Perfecta (Harrison's)
Duchess of Sutherland	Polyphemus (Elphinstone's)
Fisherton Rival (Squibb's)	Purple Perfection (Squibb's)
Glory (Douglas's)	Queen Elizabeth (Brown's)
Granta (Widnall's)	Rival King (Brewer's)
Hadleigh Champion (Girling's)	Royal Adelaide (Brown's)
Hon. Mrs. Harris (Squibb's)	Sir Walter Scott (Harrison's)
Inimitable (Harris's)	Solwood King
Ipswich Beauty (Jeffries's)	———— Queen
King of the Fairies (Brown's)	Springfield Rival (Lyn's)
King of the Purples (Roi de Pourpre) (Harrison's)	Sulphurea elegans (Jones's)
Lady Fordwich (Douglas's)	Standard (Wells's)
———— Georgiana (Harrison's)	Sir Robert Peel (Lockhart's)
———— Lascelles (Harris's)	Triumphant (Levick's)
———— of the Lake (Wells's)	Warminster Rival (Wheeler's)
Lord Lyndhurst (Forsyth's)	Yellow Perfection (Harris's)
———— Nelson (Pothecary's)	———— (Stoness's)

ON A LIST OF CARNATIONS.—An original subscriber would be particularly obliged if *INNOVATOR* will take the trouble of forwarding a list of superior kinds of Carnations, Pinks, &c., similar to the one inserted by him in the last March Number of the *Floricultural Cabinet*.

Bayswater, 21st January, 1836.

ON STOCKS FOR BUDDING ROSES UPON.—I am much interested in the Article on Standard Roses. Can your correspondent, in his future papers, devise any plan whereby persons—who, like myself, can procure, and find room to plant, a very large number of stocks—can be supplied at a small expense with buds of choice Roses? I have already worked all the sorts that I can get near me. This operation is a great pleasure to very many, whose means, like my own, will not permit them to incur much expense. Would any of the Rose-growers take back a certain number of standards, after one year's growth, in return for buds?

February 6th, 1836.

G. I.

ON HEATING BY STEAM.—I have taken your welcome little monthly visitor, the *Cabinet*, from its commencement; and in reading over the *Essay on Flowers*, communicated by GULIELMUS, and inserted in the Number for June, 1831, I find it stated by the Essayist that he manages very well without either greenhouse or conservatory, and yet he promotes the growth of his flowers in the early part of the year by steam warmth. I shall feel extremely obliged by being informed, through the medium of your invaluable miscellany, the method he adopts to do it.

T. JONES.

Caerphilly, Feb. 15th, 1836.

REMARKS.

PRIZE DAHLIAS OF 1835.—The following list of Dahlias contains the names of fifty sorts, with the number of prizes which they obtained at the exhibitions in 1835. They were of course considered good flowers, having been shown in most instances against immense varieties. There were, however, a few other very superior newer kinds, which had not got into the hands of many growers, who did not, on that account, obtain an equal number of prizes with those inserted here. The advertised lists of this season contain such, and their merits may be pretty accurately ascertained by the respective prices at which they are offered.

The figures opposite each kind denote the number of prizes.

Springfield Rival (Lyne's).....	23	Village Maid (Pothecary's).....	15
Cedo Nulli (Pothecary's).....	21	Lady Fordwich.....	15
Perfection (Widnall's).....	21	Lord Liverpool.....	15
Hon. Mrs. Harris (Squibb's).....	20	Metropolita (Wash.....	15
Lilac Perfection (Harding's).....	19	Mrs. General Grosvenor.....	15
Polyphemus (Elphinstone's).....	19	Lanchantres (Priestley's).....	14
Ariel.....	18	Incomparable (Levieck's).....	14
Miss Wortley.....	18	Jason (Widnall's).....	14
Granta (Widnall's).....	18	Metropolitan C. Lyppo.....	13
Metropolitan Perfection.....	18	Othello (Widnall's).....	13
Mrs. Wilkinson.....	17	Emperor (Widnall's).....	12
Criterion (Douglas's).....	17	Sir Robert Peel.....	12
King of the Whites.....	17	Lady Grenville.....	12
Duchess of Buccleugh (Cornack's).....	17	Beauty of Camberwell.....	12
Clio (Paul's).....	16	Orpheus (Brown's).....	12
Queen of Dahlias.....	16	Polyphemus (Wells's).....	12
Picta Formosissima.....	16	Venosa (Wheeler's).....	12
Desdemona (Brown's).....	16	Countess of Cork.....	12
Beauty of Cambridge (Brewer's).....	16	Countess of Errol.....	12
Apollo (Widnall's).....	15	Fisherton Rival.....	12
Newick Rival (Mantell's).....	16	Rival King (Brewer's).....	12
Perronia (Saiter's).....	15	Glory (Douglas's).....	12
Prince of Orange (Widnall's).....	15	Metropolitan Blush.....	12
Hermione (Wells's).....	15	Solomon (Wells's).....	11
Lord Derby.....	15	Lady of the Lake (Wells's).....	11

A LIST OF THE HIGHEST-PRICED DAHLIAS OFFERED FOR SALE IN 1836.
 —The varieties of Dahlias being so very extensive, it requires a great deal of trouble to notice all the newest kinds in the lists advertised. To render it more easy for the readers of the *Cabinet*, I have arranged a list of those kinds which are now offered at 7s. 6d. per plant, and upwards. There are many splendid kinds at lower prices, but those I give below are the newest sorts, plants of which I shall have to dispose of in May.

C. W. HARRISON.

Downham, March 11th, 1836.

At 21s. per Plant.
 Acme (Harris's) white, crimson laced
 Beauty of Westbrook, chocolate, white
 tipped

Lady Knox (Harris's) white, mottled
 tipped
 Pieta Perfecta, crimson red, neatly
 black edge

At 15s. per Plant.
 Conqueror of Sussex, carmine
 Publicola (Penny's) white, crimson
 shaded

At 10s. 6d. per Plant.
 Alpine Shepherdess, white, purple spots
 Adelaide (Brown's) white, pink laced
 Archbishop of Dublin (Penny's) rose
 Beauty of York, crimson, white
 — of Tooling, rose, white
 — of Hammersmith, purple
 tip

— of Canonbury, scarlet
 — of Battersen, rose, yellow spots
 — of Sussex, white, purple tip
 — of Bath, purple
 Burgundy, dark maroon
 Countess of Sheffield (Mantell's) purple

— of Morley, rose, crimson spots
 — of Tankerville, white, purple
 tip
 — of Pembroke, white, crimson
 tip

Conquering King of Yellows (Penny's)
 Crimson Triumphant, velvet crimson
 Clara (Seaman's) white
 Champion (Wells's) rose and white
 Claudiana (Ditto) white, rose edge
 Desdemona (Bartlett's) white, purple
 edge

Dr. Hailey, dark
 Exeelsa (Elphinstone's) fine yellow
 Emperor (Dennis's) yellow, purple edge
 Fisherton, King, white, crimson edge
 Gally Knight (Taylor's) crimson
 General Picton, orange, spotted
 Highlander, yellow, crimson edge
 Harlequin, white, purple spots
 Hadleigh Champion, yellow

Ipswich Beauty, white, rose pink edge
 Incomparable (Whale's) rosy scarlet
 King of Scariets, fine
 Lady Sagen, scarlet, orange tint
 Lady Sarah, white, mottled with pink
 Lord Talbot (Taylor's) dark plum
 Lord Lyndhurst (Penny's) scarlet

At 10s. 6d. per Plant.
 Miss Mitford, white, pink tip
 Maria Louisa (Brewer's) pink, white
 centre

Miss Wilson, white, lake edge
 Miss Ward, white, pink edge
 Miss H. Kemble, French white and pink
 Miss Pinfold, white, puce tipped
 Miss Poole, blush, lilac tip

Madame Vestri, canary, purple tip
 Miranda (Cormack's) yellow
 Napoleon (Smith's) puce
 Geo (Harris's) white, dark tip
 Perfection (Squibb's) rosy violet
 Poutlet, jet white (Mitton's)
 Purple Perfection (Squibb's)
 Princess Victoria, white

Queen of the Fairies, yellow, scarlet edge
 Rose Incomparable (Scott's)
 Standard (Wells's) primrose
 Salter (Mitchell's) blush
 Stanislaus of Poland, yellow
 Surpass Polyphemus, primrose and
 purple

Swampant (Jeffrey's) purple
 Toot, rosy lilac
 Toot Witch, buff, crimson stripes
 Toot Perfection (Wilmer's)
 Toot Rival, light purple
 Toot Perfection (Stones's)

At 7s. 6d. per Plant.
 Toot Byron, rose
 Toot Perfecta (Mitchell's) white
 Toot Searle, white, pink tip
 Toot King, dark
 Toot Puce
 Toot Anna, white, lilac edge
 Toot Rival, yellow

Toot Ragie, orange
 Toot Beard, purple and pink
 Toot Grand (Cross's) crimson
 Toot Star, scarlet
 Toot Dalston
 Toot of Abydos, white
 Toot of Lullington, purple

— Toffont, white, pink edge
 — Perry Hill, peach and white
 Canopy (Harris's) crimson
 Canavine, yellow, crimson tip
 Cassandra, fine red
 Ceres, yellow
 Colossus (Brown's) crimson
 Conqueror (Harris's) scarlet
 Cyclops (Harding's) bronze and yellow
 Canary, sulphur, purple edge





*Colochortus
splendens*



*Thunbergia
alata*

Monarda ardenalis

At 7s. 6d. per Plant.
Chastick, **Weld's Rival**, dark and purple
Defiance (**Heale's**) white, rose edge
Darius, purple crimson
Eaton's William Cobbett, yellow
Enchantress (**Evans's**) blush and purple
Earl Tankerville, rosy red
Enchantress (**Mitton's**) cream, rose edge
Flora (**Wells's**) blush, crimson spots
Forest Beauty, orange and red
Forester, bronze, lilac and yellow
Fanny Kemble
Flora, white and lilac
Foundling of St. Leonard's, primrose and brown
Fairy Queen (**Harrison's**) white
Grandis (**Marshall's**) crimson
Gloriosa (**Standish's**) rosy lilac
Grandis, light purple
Hero of Wiltshire, white and scarlet
Hoppling Girl, yellow, red stripes
Hero (**Warwick's**) scarlet
Honourable Mrs. Harris, white, carmine and purple
Hector (**Wells's**) rosy crimson
Inimitable (**Harris's**) white, purple rose edge
Jackson's Rival, yellow
King of Dahlias (**Forster's**) orange
King of Fairies (**Brown's**) yellow, rose edge
King Otho, rose
Lady Boresford, chocolate, white tip
Lady Georgiana (**Harrison's**) blush white spotted with pink
Lady Braybrook, yellow tip
Lady Ann, white, rosy pink edge
Lady Jane, blush lilac
Lord Ossulton, rosy lilac
Lord Durham, dark rose
Lovely Ann, puce, white edge, lilac tip
Lyne's Cream, tipped with lilac
Marquis of Abercorn, crimson
Matchless (**Whale's**) crimson & scarlet
Mary Queen of Scots, white and purple
Mexicanus, dark
Miss Moon, white lilac edged
Miss Bridle, white, pink laced
Mutabilis Perfecta, purple, dark stripes
Miss Cust, rose
Miss Campbell, white, pink shades

At 7s. 6d. per Plant.
Mary Fenny, (**Fanny's**) pink
Maria Antoniette, do. pink
Mendelsabel, do. yellow, red edge
Mr. Long, purple and crimson
Momon, (**Cormack's**) orange, brown shade
New China aster-flora, purple, blue shade
Ne plus ultra, white and lilac
Newick Rival, rose
Orange, (**Dennis's**)
Perfection, (**Willson's**) light crimson
Phoebe, crimson, white shade
Pinks, (**Widnall's**) light purple
Purple superata, purple
Purple grandissima, crimson, scarlet tinges
Planchon non, rose, crimson stripes
Widow Rival, rosy purple
Queen of Beauties, primrose, white edge
Queen Elizabeth, (**Brown's**) highly purple tip, &c.
Roi de la carpe, (king of purples) fine
Rose grandiflora, fine red
Royal Adelaide, (**Clark's**) rosy buff
Royal Rover, red
St. H. Fletcher, crimson
Sutton's Perfection, rose
Sutton's leading, purple
Sir Edward Sugden, puce
Sarah (**Fenny's**), white, with bright crimson
Scathlaugh Rival, crimson
Sulphur a perfecta, (**Scott's**)
Sutton's elegant, (**Jones's**)
Trojan, shaded purple
Triumph and (**Elphinstone's**), yellow
Urania, yellow and rose
Urania, white, pink edge
Venus (**Barnett's**), white, purple shaded
Virginia, white, pink shade
Volumna, cream and pink
Venus (**Barnett's**), slate colour
West (**Hopwood's**), white, white edge
Weeping Beauty (**Pince's**), orange scarlet, dark stripes
William Cobbett (**Forster's**), scarlet
Yellow Perfection (**Harris's**), crimson edge
Youtmanianum, amber, scarlet edge

REFERENCE TO THE ILLUSTRATIONS.

1. *Calochortus splendens*, The showy flowered. This is another handsome flowering species of *Calochortus*. It is a bulbous rooting plant, a native of California; and was sent to the Garden of the London Horticultural Society, by the late Mr. DOUGLAS. This, when grown in contrast with *C. venustus*, (see plate in February number), produces a handsome and striking effect. The present species requires the same treatment as *C. venustus*. (See p. 47.)

2. *Thunbergia alata alba*. The variety here figured is an hybrid production, and we are informed raised between *T. alata* and *T. fragrans*. It is a most pleasing and beautiful flowering plant. It is a hothouse climber, but does equally well in a greenhouse during summer; where, if it be allowed plenty of pot room, it will grow luxuriantly and bloom profusely. It

deserves a place in every greenhouse. A sandy loam and peat soil mixed, having the pots well drained, suits the plant. The red spider is a great enemy to this plant; frequent syringings at the under side of the foliage is necessary to prevent its injuries. Soap suds applied occasionally, kills the insect. The plant is easily increased by seeds or cuttings.

3. *Mimulus cardinalis*, Scarlet-flowering. A new hardy, herbaceous species. Seeds of it were sent from California, by the late Mr. Douglas, to the Garden of the London Horticultural Society. It is a most beautiful flowering plant, and a very great acquisition to the flower garden, and merits a place in every one, both on account of its fine scarlet blossoms, as well as its continuing to blossom from early to late in the season. It delights in a moist and rich soil. We saw it in bloom last summer, and were struck with its appearance: it will be one of the greatest ornaments of the flower garden.

4. *Pentstemon Cobæa*, Cobæa-flowered. This is a very showy species of Pentstemon, producing panicle spikes of numerous large flowers, which have a most showy appearance. The plant, we are informed, requires the same treatment as the other kinds of Pentstemons. It is perennial. The spikes of flowers rise about two feet high. It ought to be grown in every flower garden. It is cultivated in Scotland, and we expect it will soon be in this country. Plants of the other three, viz., *Calochortus splendens*, *Thunbergia alata alba*, and *Mimulus cardinalis*, may be obtained at the Downham Nursery, Norfolk.

FLORICULTURAL CALENDAR FOR APRIL.

CUTTINGS.—If old plants of *Salvias*, *Fuchsias*, *Petunias*, &c., were saved through winter, and young plants be required for turning out into open beds in the flower garden, &c., young shoots should now be taken off close to their origin upon the old wood, and be struck into moist heat.

ANNUALS.—Hardy kinds should be sown in the borders, &c. Tender kinds should have plenty of air admitted to them, whether sown in pots or upon a slight hot bed. In order to have the plants of some particular kinds stiff and healthy, they should be planted off into small pots, boxes, or the open border, or slight hot-bed, &c., so as to be fine plants for final planting in May. Many kinds of tender annuals, intended to ornament the greenhouse or stove through summer, will require potting off, or if done before this month, probably re-potting into larger pots.

CAMPANULA PYRAMIDALIS.—Offsets or cuttings should now be taken off.

CARNATIONS.—If not planted off last month, they should now be done.

DAHLIAS.—Seedling plants should be potted off, one plant into a small or sixty-sized pot. Shoots from old roots should be taken off, where it is desired to increase the kind, and strike them in moist heat.

CHINA ROSE.—Plants of the tender kinds, as yellows, sweet-scented, &c. should now be placed in heat, in order to cause a production of shoots for striking, so as to increase the kinds when desired.

CHINA ROSE (hardy kinds).—It is now the proper time to bud the varieties of China Roses; do it as soon as the bark will freely rise.

TAIVERANIA COCCINEA.—Roots of this plant should now be potted.

PELARGONIUM.—Cuttings now struck will produce plants in bloom at the end of summer.

PANSETTES.—Plants will now be pushing shoots that will be emitting roots. Where it is wished to increase the kinds, it is a very suitable time for doing it, by taking off shoots, and planting them in a good rich soil, shading them for a few days at first.

TIGRIDIA PATONIA.—The bulbs should now be planted in the open bed; choose a warm and sheltered situation.

ESCALA (Heaths).—Cuttings of many of the greenhouse kinds should now be put off.

MIROBURNIA.—To bloom from June shoots now be sown.

ROSE TREES.—When it is desired to have Roses late in the season, let them be pruned this month.

THE
FLORICULTURAL CABINET,
MAY 1st, 1836.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.—CULTURE OF THE *BLETIA TANKERVILLIÆ*,

BY MR. PARKIN.

Gardener to J. S. Stanhope, Esq., Common Hall, near Barnsley, Yorkshire.

THE *Bletia Tankervilliae*, one of the many beautiful productions of China, is an old inhabitant of British stoves, we, nevertheless, frequently witness unsuccessful attempts to cultivate this plant, so as to insure a fine show of its singular and beautiful flowers. When properly managed, few plants present a more gay appearance when in flower; we have here one plant in a pot, twelve inches in diameter, which, in November last threw up nine stems, each of which continued for three months to unfold a succession of its lovely flowers; we, therefore, flatter ourselves, that we have been tolerably successful, and consequently, venture to offer for the consideration of your readers and inquirers a few observations thereon; not, however, presuming to have it thought, that no other method would be equally successful. The plant in question, is one with many others (when growing in the limited space of a flower pot) that may be greatly injured by being overabundantly watered; any plants producing abundance of roots, naturally suggests the idea of requiring abundance of food: but here it becomes the duty of the cultivator to enquire, what that food should be.—Water, is with undoubted propriety considered to be the medium through which plants are supplied with food, and is generally applied with a liberal hand, to such as are provided with abundance of roots; with the *Bletia Tankervilliae*, we may easily err; for although, as long as the soil is open and the pots well drained, a liberal supply of this element may be required, yet when the plants have attained about the maximum of their growth, the pots will have become crowded with roots to such a degree, as will very materially interrupt the passage of water through them, such being the case, water more sparingly, so as not to keep the roots in a constant state of saturation, and on the other hand,

not suffering them to become absolutely dry ; for though the plant is so tenacious of life as to be able to live for a considerable time, in either of those extremes, to succeed creditably both must be avoided. The compost we use, consists of equal parts of brown strong loam, peat, and leaf mould, with a moderate portion of broken pot ; potting is regulated by the season of flowering, and may be performed immediately after the flowers are gone, when they are potted with balls entire ; but when the plants are to be divided, it is better deferred until the young offsets have emitted their roots a few inches, they may then be carefully separated from the parent, and potted in pots of a smaller size. We have recovered unhealthy plants, by shaking them out of the pot, and washing every particle of soil from the roots, repotting them in the compost above named.

ARTICLE II.—CULTURE OF THE DOUBLE POMEGRANATE,

BY A DEVONIAN.

OBSERVING that the query of "C. S." in the March number of the *Cabinet*, on the blooming of the Double Pomegranate, has not been answered, I beg to forward this extract from Evelyn's *Silva*, which may probably be useful to the enquirer. "There are of this glorious shrub three sorts, easily enough educated under any warm shelter, even to the raising hedges of them ; nor indeed effects it so much heat, as plentiful watering. They supported a very severe winter in my garden, 1663, without any trouble or artifice ; and if they present us their blushing double flowers for the pains of recission and well pruning, (for they must be diligently pruned of superfluous wood) it is recompence enough. It is a *Perdifolia* in winter, and growing abroad, requires no extraordinary rich earth, but that the mould be loosened and eased about the root, and hearty compost applied in spring and autumn ; thus cultivated, it will rise to a pretty tree. 'Tis best increased by layers, approach and marching (as they term it,) and is said to marry with laurels, the damson, ash, almond, mulberry, citron, too many I fear to hold. But after all they do best being eased, the mould well mixed with rotten hogs-dung, its peculiar delight, and kept to a single stem, and treated like other plants in the winter shelter." There seems, however, to be some contradiction in the quaint writer's statement, and most assuredly the plants do *not* require "the winter-shelter" (at least in the South of England) to induce them to flower abundantly, but I know from experience, that they are capricious bloomers, and very often the whole strength of the plant is apparently engaged in the formation of countless bran-

ches and foliage. I have a double red pomegranate many feet high, trained against the front of my house, which for years never produced a single blossom; to induce it to flower, I removed all the soil around it, and filled the pit with a rich compost, but this plan was not successful, as for two seasons a solitary blossom only was produced. I was then recommended by a nurseryman to have some of the principal roots cut through, to check the luxuriant growth of the plant, which, early in the ensuing spring, was done; this plan succeeded perfectly, and towards the end of the summer, numerous blushing double flowers were produced—and the tree has ever since bloomed annually. I do not however, recommend this plan to “C. S.,” those plants are probably too young to blossom, whereas mine is upwards of thirty years old; notwithstanding, comparatively small pomegranate trees often flower abundantly, and I have seen one not above five or six feet in height, which had fifty blossoms open at one time,—the soil in which it was growing was a heavy loam,—almost clay, which kind of earth suits the pomegranate better than any other. I agree with Evelyn in considering this a “glorious shrub,” and its brilliant flowers are assuredly a sufficient recompence, for any trouble we may take with it. Does “C. S.” know the yellow variety? it is worth having, as its blossoms are similar in size and shape to the red, but of a delicate sulphur colour; there is also a white variety, but I am not acquainted with it. I hope my hints may be useful to “C. S.,” though, being only an amateur, I cannot give that information, which a scientific gardener is capable of imparting.

ARTICLE III.—ON THE MANAGEMENT OF THE DOUBLE FLOWERED POMEGRANATE, *PUNICA GRANATUM MULTIPLEX*.

By Mr. David Whale, Gardener, Winchester.

THE Pomegranate is an old inhabitant of our gardens, but it seems to have been known to the Africans for many ages before it came into our possession; it is mentioned in holy writ, as being in the possession of the Egyptians more than 3000 years ago; it is a native of the South of Europe and North of Africa. Dr. Sibthorp, informs us, that it is found plentiful in Greece, both in a wild and cultivated state; it was introduced into this country about the year 1548. The double flowering kind is much more esteemed than the other in this country, for the sake of its large fine double flowers, which are of a most beautiful scarlet colour; and if the trees are well managed, and supplied with due nourishment, they will continue to

produce flowers from four or five months successively, which renders it one of the most valuable flowering trees; this sort may be rendered more productive of flowers, by grafting it upon stocks of the single kind, which check the luxuriance of the trees, and cause them to produce flowers upon almost every shoot. There have been various ways recommended to manage the pomegranate, so as to make it flower freely, and forty years experience has taught me what I conceive to be the most successful method. I do all my pruning in the summer season, training the branches at a regular distance, of about four inches apart, in the same way as I train a plum tree; towards the latter end of June I look over the trees, and remove all the shoots that are running to wood, at which time they are young and tender, and are easily removed without the assistance of a knife. Care must be taken to leave all blossom shoots and spurs, these are easily distinguished from wood shoots; this I do about three times during summer, and by this treatment the tree continues to flower four or five months, making a very grand appearance, and repaying by its beauty for every care a gardener can bestow.

P. S. The knife should never be used about these trees in winter, except to remove decayed branches, &c. They are easily propagated by layers or cuttings. To accomplish the first: in March, select some of the young branches for the purpose, give a little slit at a bud underneath, they will easily strike root without slitting, and I consider that method to be the safest; lay them in the usual way, water them occasionally during the summer, and by the following autumn they will be well rooted so that they may be taken off and removed to any warm situation, to gain strength, before they are planted where they are to remain.

Cuttings.—If cuttings are required in June, take some young tops of branches, select a warm place in the garden, place them under a hand-glass, shade them in hot weather, and by autumn they will have taken root.

ARTICLE IV.—REMARKS ON STOVE PLANTS.

BY THE AUTHOR OF THE DOMESTIC GARDENERS' MANUAL.

THERE are some plants which, doubtless, require what may be termed a lively heat during winter, (60 to 65 degrees) but there is a good deal of error and misconception abroad upon this subject, and many persons deny themselves the enjoyment of much exquisite beauty, by admitting the belief that *all* stove plants are tender. I certainly admit that tropical natives, if they are to be retained in verdure and

growth (if such it can be called) at all seasons, must not be permitted to inhabit an erection where the thermometer shall fall below 55 degs. But if the lovers of plants be content to let the verdure of a good, airy, dry greenhouse, be supplied by Camellias, Heaths, Myrtles, Orange-trees, and the like; and to suffer a number of lovely flowering stove plants to sink into repose during November, December, and the half of January; they may try the aid of a vinery, or even of a pit, with a flue in it, indulge their taste, and excite the Chinese Hibiscus, (*Hibiscus Rosa Sinensis*) and all its single and double varieties—the fragrant, West Indian *Brunfelsia*, (*B. Americana*) the elegant purple Guava (*Psidium Cattleianum*) the coffee—(*Coffea Arabica*.) All the Gesnera and Gloxineas—cum multis aliis—to renewed life and perfection.

I, this winter, from unavoidable alterations, had all my stove plants exposed to direct frost; many to five or six degrees of it; and now by the aid of a vinery at work, kept very moist, have brought numbers into complete healthy verdure.

I do not recommend any dangerous experiment, nor would I advise any one to expose his plants to a depression below 40 degrees; sooner than do so, I would place them in a dark cellar: but I certainly have seen proof of what many plants *can* endure; and therefore, am quite satisfied that a very gratifying addition may be made to collections of subjects possessing surpassing beauty, without incurring any risk of a loss from causes which would prove entirely destructive to a common Geranium.

March 8th, 1836.

ARTICLE V.—ON HEATING GREENHOUSES, &c.

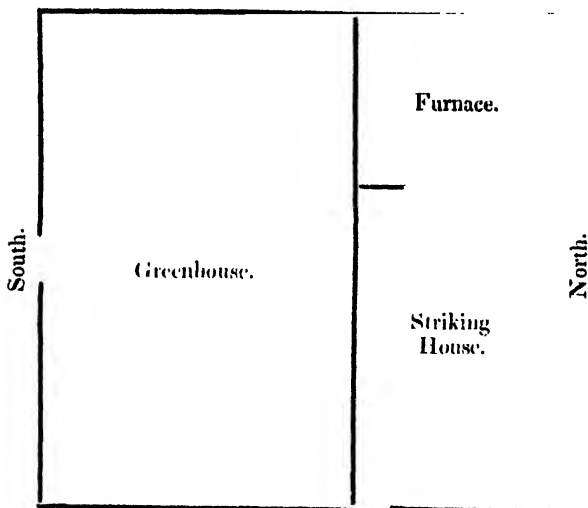
BY C

THE defeat of the present different modes of heating structures for horticultural purposes, is the daily occurrence of the trouble of managing the fire required. To obviate this inconvenience, a cistern containing several hogsheads of water might be substituted for the pipes now in general use: and a reservoir of heat obtained which would last for several days.

The cistern might be adapted to form the under part of the pit of a striking-house, facing the north: and so contrived as to communicate warmth to a greenhouse adjoining the back of it, facing the south.

A rough sketch of the plan is subjoined: and if you think the idea worthy consideration, I should be glad to see a notice of it in your

valuable Journal, and perhaps some reader may point out a good mode of obtaining the greatest degree of warmth by such a method of heating.



ARTICLE VI.—COLLECTANEA,

BY J. K.

FLORICULTURAL IMPOSTERS.—Our neighbours the French, ever and anon, make experimental visits to this country, with a cargo of nominal rarities for our flower amateurs. Last spring, an elderly man with a youth, who spoke broken English, for an interpreter, visited Nottingham, Leicester, Birmingham, and Bath, with yellow moss roses, black moss roses, yellow camellias, yellow lilacs, and other articles with names equally tempting. It is well known, that a yellow camellia or black moss rose would be invaluable, therefore, these most alluring names, tempted many of the neighbouring gentry to become purchasers, at large prices; but, however, last summer, when the plants flowered and showed their characters, the roses proved to be of the most common description, and the yellow camellia only the common red one. Some adventurers of this description sold, what proved to be common yellow laburnums, for scarlet and dark red laburnums by auction at the Egyptian Hall, Piccadilly, and at the Mart last spring, and realized such high prices, that the imposter must have returned to his brother florist in France, with more money than

the whole of their collections were worth. The Frenchmen sold last spring, roses, and falsely called them scarlet lilacs, and red laburnums, to the amount of £1000 in London alone.—*From the Bath Journal.*

GIGANTIC FLOWER.—In 1818, Doctor Arnold discovered in the Island of Sumatra, a flower, which, he named the *Rafflesia Arnoldi*, and which an author has called with much justice “the magnificent Titan of the vegetable kingdom.” The human mind had never conceived such a flower, the circumference of the full expanded flower is nine feet, its nectarium calculated to hold nine pints, the pistels are as large as cows horns, and the entire weight of the blossom computed to be fifteen pounds.

FIRESIDE TRADITION has given to many an herb and bird, a stamp and odour of Ould Langsync, the Pansy is still sacred to Oberon and Titania; the Mischtoe is not of our generation; the mandrake is still a departed fearful ghost of other days; the toad is the most ancient of reptiles; and the raven is “a secular bird of ages”; but this imputation of antiquity belongs not to every flower that has been sung in past ages; the rose and lily have been time immemorial the poet's themes, yet they are not antiquities, their loveliness has no more relation to one age than another.—*Fragment from Chamber's Journal.*

The first evening meeting of the Bath Royal Horticultural and Floral Society, for the purpose of Horticultural discussions, took place on Tuesday evening, Jan. 12th., at Mr. Collings's, Saville Row, and was well attended, R. Godfrey Esq. in the chair, who delivered an able introductory lecture, H. St. John Maule Esq., read a paper contributed to the society by the Rev. R. Hoblyn, on the best means of cultivating the Hautbois Strawberry. Mr Slater read a short paper on the means of growing the roots of Hyacinths in this country, in as great a perfection as those imported from Holland. S. Barrow, Esq., will take the chair at the next meeting, when specimens of Camellias, and forced Hyacinths, Tulips, &c., will be exhibited.

Horticultural Society of London, Dec. 1st. The collection of flowers exhibited, was interesting, considering the late period of the year, especially the collection of chrysanthemums, from the society's garden, the different specimens of plants from the Hon. W. F. Strangeways; and some very fine specimens of the *Bignonia venusta*, from Miss Trevor, of Tingrith, near Woburn. Independent of the beauty of this plant, the season of its blossoming must always render it one of the most desirable of hot-house climbers, being found to continue in flower from the beginning of November until February,

and in the present instance to cover the whole stove, a surface of 500 feet.

According to a paper read at the Medico-Botanical, December 8th, from M. Richard of Paris, the *Aconitum ferox* is described as the most deadly poison known in the southern hemisphere; the *Aconitum Napellus*, common monkshood, and *A. Lycoctonum*, is described as having very poisonous qualities, but their effects have been much exaggerated.

PART II.—NEW AND RARE PLANTS,

Noticed since our last.

1. *ANGRÆCUM CAUDATUM*, (Bot. Reg. 1844,) Long-tailed. A very curious species of the Orchideous tribe of plants, cultivated with great difficulty in the collection of Messrs. Loddiges's at Hackney. The plant is secured to a piece of wood, and is suspended in the stove. The flowers are produced upon a long and pendulous spike. The ovary is of a dark brown, with numerous darker spots upon it. Labellum, white. Column of a dark green. The flower is about three inches across. *Class*, Gynandria. *Order*, Monandria. *Natural Order*, Orchidaceæ.

2. *AZALEA NUDIFLORA*, Naked flowered. (Maund's Bot. Garden.) An old inhabitant of our gardens, having been introduced into this country from North America in 1734. From this an immense number of varieties have proceeded, being impregnated with other kinds. This genus is now reduced to a very few species. The original separation of *Azalea* from *Rhododendron*, was in consequence of a difference in the number of stamens. The latter having ten, and the former only five. This distinction, however, is not found constant, and the greater part is now included in *Rhododendron*.

3. *CAMPANULA LOREYI*, Lorey's Bell Flower. (Brit. Flow. Gard.) Synonyms, *C. baldensis*, *Cramosissima*. A *hardy annual* of considerable beauty, introduced in 1825, from Mount Baldo. The plant is of easy culture, and produces seeds abundantly; it grows about nine inches high, flowering freely. Some of the blossoms are of a fine purple blue colour, and others of a pure white. Each flower is two inches and upwards across. When the plant is cultivated in masses, the flowers are very showy and ornamental, and continues in blossom for many months. *Pentandria Monogynia*, *Campanulaceæ*. *Campanula* from *campana*, a bell, the shape of the flower. The specific name was given in compliment to Dr. Lorey, its discoverer. Seeds may be obtained of the London Seedsman. See Advertisement in the Cabinet.

4. *CHELAGASTRA GRACILIS*, Slender (Bot. Mag. 3481) Synonyms, *Rhexia gracilis*. The plant is a native of Brazil, from whence it was sent by Mr. Tweedie to the Glasgow Botanic Garden, where in the hot-house it has bloomed. The plant is of the natural order *Melastomaceæ*, and is one of the handsomest of that tribe. The flowers are of the colour, and nearly the size of the *Calandrinia speciosa*. Decandria Monogynia. *Melastomaceæ*. *Chætogastra* from *chaite*, a bristle; and *gastes*, from the numerous quantity which cover the ovary.

5. *COOPERIA CHLOROSOLEN*, Green-tubed. (Bot. Mag. 3482.) A native of the Texas, from whence it was sent by Mr. Drummond. The present species bloomed in the fine collection of the Honourable and Reverend Wm. Herbert, Spofforth. The flower is of a pure white, about an inch and a half across. (See page 63 of the *Cabinet*.) Hexandria Monogynia, *Amaryllidææ*. *Cooperia* in compliment to our friend Mr. Cooper, of the Wentworth gardens.

6. *COREOPSIS SENIFOLIA*, Six-leaved. A perennial plant a native of North America, and introduced into this country in 1812. The leaves grow in whorls of six in each. The plant grows about two feet high. Flowers produced in a corymb. Each is about an inch and a half across, of a deep yellow colour. Syngenesia Frustanea. *Compositæ*. *Coreopsis* from *Korris*, a bug; and *opsis*, a resemblance, alluding to the seeds.

7. *CRATÆGUS MICROCARPA*, Small fruited Hawthorn. A very considerable accession of beautiful kinds have been added to this deservedly esteemed genus within a few years, and add much to the ornament of our pleasure grounds, both in their blossoms and splendid fruit. The present species is a native of Georgia and Carolina, where it grows to a tree of twelve or fourteen feet high, but does not grow near so high in this country. The blossoms are white, appearing in May and June. The fruit is produced abundantly of a fine red colour.

8. *CRATÆGUS HETEROPHYLLA*, Various-leaved Hawthorn. This is one of the handsomest of the whole tribe. The tree grows in a conical form, flowering most profusely; the blossoms are white, and are succeeded by fine sized berries, which are of a rich crimson colour, and render the plant very ornamental. *Cratægus* from *kratos*, strength; referring to the wood.

9. *GOODETIA LEPIDA*, Smart Goodetia. The flowers of this new annual very much resemble some of the *Oenotheras*, particularly *O. decumbens*. The flowers of *G. lepidæ*, are of a pale purple with a light centre, each petal is marked at the upper part with a large

patch of a crimson purple colour, and gives the flowers a pretty appearance. The plant grows about half a yard high, and is a most profuse bloomer; it certainly merits a place in the flower-garden.

10. *KENNEDYA STIRLINGHI*, Sir James Stirling's *Kennedya*.—Seeds of this very neat and pretty flowering plant, were sent by Sir James Stirling from the Swan River to Robert Mangles, Esq. of Whitmore Lodge. It is a trailing greenhouse plant, blooming in April. The flowers are produced in pairs, they are of the pea tribe, each about half an inch across, of a fine scarlet colour:

11. *LINUM BERENDIERII*, Berendier's yellow-flowered flax.—A native of the Texas, introduced into this country last year. It is a very beautiful flowering species, a hardy annual, and a great acquisition to the flower-gardens. A single plant produces a number of stems, which are much branched, and become clothed with flowers, of a fine deep yellow colour, with an orange scarlet eye. Each flower is about an inch and a half across. The plant deserves a place in every flower-garden. Pentandria Pentagynia. Lineæ. *Linum* from *Llin*, the celtic term for thread.

12. *MAXILLARIA RUFESCENS*, Brownish flowered. Mr. Lowe of Clapton, introduced this species into this country from Trinidad. The flower is small, the petals are of a brownish red colour, labellum of a fine yellow, spotted with rich crimson. *Maxillaria* from the labellum, resembling the maxillæ of some insects.

13. *OXURA CHRYSANTHEMOIDES*, Ox-eye, like *Oxura*. A new hardy annual, introduced from California by the late Mr. Douglas. It has bloomed in the garden of the London Horticultural Society, during August and September. The flower much resembles the common *Chrysanthemum coronarium*, of a deep yellow colour towards the centre, but lighter at the ends of the petals. Syngenesia Superflua. Compositæ *Oxura* from *orus*, sharp; and *oura* a tail.

14. *PERISTERIA PENDULA*, Pendulous Dove-flower. A fine and singular flowering orchideous plant, from Demarara. It has recently bloomed in the collection of John Allcard Esq., Stratford Green, near London. The flowers are produced upon a pendant scape, which is about eight inches long, and bears five or six flowers upon each. Each flower is near two inches across, fragrant, of a greenish-white colour on the outside, the inside of a slight blush colour, spotted with purple. The lip is of a dingy white, also much spotted with purple. Gynandria Monandria Orchideæ. *Peristeria* from *Peristera*, a Dove; its column resembling a dove in form.

16. *POTENTILLA MOLLISSIMA*. Soft-leaved. The plant is a native of South of Europe, and introduced into this country in 1832

It is a hardy perennial, growing about half yard high, blooms from June to September, each flower is about an inch and a half across, of a fine sulphur yellow colour. Pentandria Monogynia Rhodoraceæ. *Potentilla* from *Potens*, powerful; supposed medicinal qualities.

17. RHODODENDRON FLAVUM; VAR. CORONARIUM; Garland Flowered Rose Bay. Synonym, *Azalea pontica*, var. This is a very profuse, and showy flowering variety, which has been introduced from Holland. It is by far the handsomest of the yellow blossomed kinds. The flowers are produced in large heads, each having fifty or more upon it, and they are of a fine deep yellow. Mr. Knight of Chelsea, possesses this splendid variety.

18. VERONICA EXALTATA, Lofty Speedwell. The plant is a perennial, and a native of Siberia, from whence it was introduced in 1816. It grows about four feet high, flowering from July to September. It produces numerous spikes of fine blue flowers, which are very showy. Diandra monogynia; Scrophularinæ; Veronica. From the name of a princess.

NEW PANSY, &c.—We have been very much pleased with a seedling Pansy, raised by Mr. Barratt, Nurseryman, Wakefield, named Pearson Walton. It is of a most splendid puce, as its ground colour. The fine colour and shape of the flower render it deservedly admirable. We are glad too to find that associated with it, is the name of a gentleman who is not only an ardent lover of Floriculture, &c. but equally an encourager of the same. Mr. Barratt, we saw, possesses a superior kind of Ribes, named *R. coccinea*, which far surpasses in colour the beautiful *R. sanguineum*. CONDUCTOR.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERY.

ON *MIMOSA SENSITIVA*.—A debtor to the *Floricultural Cabinet*, would feel himself greatly obliged, if any correspondent would inform him of the best method of raising the Sensitive Plant—*Mimosa sensitiva*. Last spring, I sowed some seeds in a pot of earth, composed of peat, mould, and fine sand, and plunged them into a frame of moderate heat. They came up very sickly in appearance; I afterwards repotted them in 48's with the same compost, and placed them in the best situation in the greenhouse, when, upon growing a little, they gradually died away.

Loughborough, March 12th. 1836.

ANSWERS.

In Reference to *Roses* changing their colour, by change of situation &c., I have to observe, that this does sometimes occur, but upon close observation, it will generally be found to have proceeded from a predisposition in the plant to disease, arising from some external injury it may have received when in full vigour of growth, or from very indifferent soil. I have seen in several instances, *George the Fourth*, bloom quite a pale red, as Mr. Rivers observes, scarcely to be recognised; but proceeding from one of the above causes.

March 7th, 1836.

A. GODWIN.

ON THE HISTORY OF THE *DAHLIA*.—In reply to your correspondent, "A. Z." p. 45, I beg to observe, that the *Dahlia* is stated to have been introduced in 1789, by the Marchioness of Bute, as a native of Mexico, and that the Comte de Vandes imported several varieties from France, where the plant had been cultivated for some years with great assiduity, by M. Lelieur, at Sevre, near Paris. (Vide Bot. Mag., Vol. XLIV, p. 1885.) M. Decandolle, observes, that "it may be inferred with a degree of probability approaching to certainty, that no blue variety of *Dahlia* will ever be found, because, blue and yellow being the two primitive colours of flowers, and always exclusive of each other, no blue flowers can change to yellow, nor yellow to blue. I must confess, that it would have been more desirable, to have adhered to Decandolle's and Willdenow's name, *Georginia*, in preference to the more common appellation *Dahlia*, particularly as we have the genus *Dalca*, a name by which it is too often improperly called.

Botanic Garden, Bury St. Edmunds, Feb. 4th. 1836.

N. S. H.

ON DESTROYING THE MEALY BUG.—In your January Number, a Regular Subscriber desires to know the best mode of destroying the Mealy Bug; I therefore, feel much pleasure in answering his query, as the mode I have always adopted, has, in every instance proved most satisfactory. The remedy is, simply to dust the plant or plants with Tobacco Snuff, and the Mealy Bug will in a few minutes cease to exist; as the snuff will not injure any plant, when it is applied in this way, it should not be washed off for some time, as the larvæ of the mealy bug is so very minute, thousands might escape untouched. I have also found it most efficacious in destroying the Aphis, and other noxious insects, on plants which will not bear fumigation. Any plant, however, dusted with snuff, should not be watered overhead, until it be clean washed, as the snuff when wetted on the leaves has an unsightly appearance. Trusting you will excuse this obtrusion on your useful pages, under the hope, that it will answer the purpose which the querist desires.—I am Yours,

J. C. H.

REMARKS.

ON SUPERIOR PINKS.—The article in the March Number of the *Cabinet*, under the name of *Innovator*, being wrote in the full spirit of ridicule, it is not my intention to trouble the reader with much in reply, more particularly as the writer is a *Sculker*; one part, I must confess, is really amusing, viz. he having introduced in his ridiculous Article, Bows Cato. This Pink was not named by me to Mr Smith, and is, I believe, one of the smallest Lancashire Pinks, yet this Mr. Innovator, has selected this against his one in the Ring (*this is most beautiful.*) Let me recommend my brother florists to grow such Pinks as I have named, that is, if they wish to possess what is called *Florists' Flowers*; if on the other hand, they want Pinks without form, *bursting pods*—the centre full of small leaves, the lacing bad, the colour also bad, they may then apply to Mr. Innovator *with the needful*, and I have no doubt he will find them. I shall be most happy to correspond with any brother florist, on the good or bad properties of a pink, and where they are to be had. But must request to have their *name* and place of abode, none else shall be noticed by me, for such *bush fighting*, as appeared in *Innovator's* remarks, is to say the least unmanly. T. CONNELLY.

Lancaster, March 12th, 1836.

EXHIBITIONS AT THE GARDEN OF THE HORTICULTURAL SOCIETY OF LONDON, FOR 1836.

- "MEETINGS will be held at the society's garden, for the exhibition of choice specimens of flowers or fruit, on the three following days:—SATURDAY, May 14; SATURDAY, June 11; and SATURDAY, July 9, to which exhibitions all persons, whether fellows of the society or not, are invited to contribute.
- "To enable exhibitors fully to understand the object of these meetings, and the description of horticultural productions of which it is desirable that they should consist, the following regulations have been adopted:
- SUBJECTS OF EXHIBITION.
- "Medals will be given for subjects of the following description:
- Gold Knightian & Large Silver Medals.*
- "Alstromerias.
 - "Stove Orchideæ, in collections of four species.
 - "Ditto, single specimens of any ornamental Asiatic species.
 - "Stove or Greenhouse Plants, in collections of six different kinds, single specimens.
 - "Ditto, in collections of ten different kinds, and not exceeding six specimens of each kind.
- Large Silver & Silver Knightian Medals.*
- "Hardy Azaleas, in collections of six rare kinds.
 - "Greenhouse Azaleas, single specimens, and in collections of not more than six kinds.
 - "Amaryllideæ, in collections of six specimens.
 - "Cacti, the tall kinds, in flower.
 - "Ditto, the melo-shaped kinds, whether in flower or not.
 - "Eusata, Cape kinds, in collections of twenty varieties.
 - "Ferns, tropical kinds.
 - "Grapes.
 - "Heaths, Cape kinds, in collections of twelve.
 - "Hardy Orchideæ, if cultivated for more than one year.
 - "Stove Orchideæ, single specimens of any ornamental American species.
 - "Ditto, of any ornamental African species.
 - "Pineapples.
 - "Roses, Chinese and Noisette, in collections of twenty varieties.
 - "Garden Roses, in collections of fifty varieties.
 - "Succulent Plants, not before enumerated, in collections of six specimens.
 - "The best single specimen of an or

namental New Holland Plant.

" Ditto Cape Plant.

" Ditto New Zealand Plant.

" Ditto Chinese Plant.

" Ditto of any new, hardy, ornamental shrubby plant.

Silver Knightian Medal.

" Anemones.

" Balsams, in collections of six specimens.

" Calceolarias, in collections of six pots.

" Carnations, Pinks, or Picotees, in collection of twenty-four varieties.

" Cucumbers, in braces.

" Cockscombs, in collections of three specimens.

" Figs, in dishes.

" Heart's ease, in stands of thirty varieties.

" Melons, single specimens.

" Pelargoniums, in collections of twelve varieties.

" Peaches and Nectarines, in dishes of six specimens.

" Stove or Greenhouse plants, not enumerated elsewhere, one single specimen.

" The best single specimen of any new, hardy, ornamental herbaceous plant.

" In addition to which, the society offers its large gold medal, valued at £25, to that exhibitor who shall obtain the greatest value in prizes on any one day, provided he gives up his claim to whatever other medals he may have gained. The value to be ascertained by reckoning

A gold Knightian medal worth 10.

A large silver medal, worth 5.

A silver Knightian medal, worth 1.

" Should two or more exhibitions be found equal in the award of the judges, then each will have the large gold medal.

" In consequence of the dies of the large and banksian medals having become worn out, two new dies are in the course of preparation, one of which will still be called the large medal; and the other, with the head of Mr. Knight, the president of the society, will be named the Knightian medal.

JUDGES.

" The respective merits of competitors will be decided by a conference between the judges, not exhibitors, especially appointed for the occasion, and a committee of the council of the society; and the award will be the expression of the joint opinion of those two bodies, who, in forming their decision, will be directed to follow these regulations strictly. ob.

—that the medals are offered not for objects which are merely curious, but for the most remarkable and valuable specimens of horticultural skill,—and that the design of the council in instituting these meetings, is not to encourage the mere collector, but to reward the success of the skillful gardener.

N. B. No Exhibitions can be placed upon the Tables unless they belong to some one or other of the Classes above described; and no award will be made by the judges in cases where the objects exhibited do not appear worthy of a medal; otherwise a bad single exhibition might obtain a first prize, merely because there was no better exhibition of the same class to oppose it.

FLOWER STANDS.

" Provision will be made by the society for placing on the tables such specimens as may be furnished by exhibitors; but as flowers travel most securely when fixed permanently in boxes, and as many persons prefer their own stands, it has been determined that any exhibitors may use their own boxes or stands, under the following conditions:

" No box or stand shall exceed eight inches in height at the back, or eighteen inches in depth from front to back. The lids of all boxes must either be loose or made to unhinge. No box with a fixed lid will, on any pretence be allowed to stand upon the tables.

DELIVERY OF OBJECTS FOR EXHIBITION.

" Exhibitors are earnestly requested to notify in writing, previous to the day of meeting, what it is their intention to supply in order that due provision may be made for the proper distribution of the plants, &c. on the exhibition tables. The best places will be secured for those who comply with this request.

" As the garden will be opened at 1 p. m. for the general admission of visitors, it is necessary that the judges should proceed to consider the respective merits of the exhibitions by 11 a. m., and as it is absolutely indispensable that the tables should be in order by that time, it

has been determined that no subject for exhibition should be admitted into the garden after half-past nine o'clock in the morning; and if the owners of any tent at the said hour, such cases or boxes received, should not be in the exhibition, they must be excluded from the exhibition. " All specimens, whether of fruit or

flowers, will remain untouched until after six o'clock, when they will be delivered into the hands of the exhibitors.

"Every exhibitor will be required to sign a written declaration that every article exhibited has been in the possession of the exhibitor at least four months.

ADMISSION OF VISITERS.

"The garden will be opened, on each day, to fellows and visitors, from one o'clock till sunset, under the following regulations."

"All fellows of the society will be admitted without tickets, on signing their names in a book at the entrance. Visitors will be only admitted by tickets, to be obtained through fellows of the society.

"All fellows who shall, on or before Tuesday, the 5th of April, subscribe to

towards defraying the necessary expenses, will receive three tickets for every half guinea so subscribed.

"After the 5th of April tickets will be delivered to fellows on their personal application, or written order, at the price of five shillings each.

"All tickets subscribed for, and not taken by the subscribers on or before Tuesday, the 19th of April, will be charged five shillings each.

"Each ticket will be available for admission to either of the three exhibitions, at the option of the visitor.

"All applications for tickets must be made at the society's office, 21, Regent-Street.

"Any tickets issued at the garden on the days of exhibition will be at the advanced price of ten shillings."

ON STRIKING YOUNG SHOOTS OF DAHLIAS.—I have, during February and up to the 10th of April, been occupied in striking young shoots of Dahlias, and I find a considerable difference is required in the age of taking off shoots so as to strike them certainly. Some kinds I find have robust and coarse shoots, if these be taken off before they get about five inches long, I find them very liable to rot off. Whereas, those of a less vigorous habit, and having smallish shoots, will strike if taken off at two inches long. I find, however, that younger the shoot is, more sand must be used in the soil to keep it open, to allow the water to pass away freely. I break my shoots clean from the old root whenever I can; it is easily done. I find such root much better than when a shoot is cut through close under a joint. If shoots be taken off when not more than two or three inches long, they may be removed without injuring any remaining that may be upon the old root. I have sometimes found where a quantity was pushing up closely, that to cut a little carefully with a point of a penknife so as to assist in separating it, has been of assistance.

J. JONES.

Chester, March 10th, 1836.

LITERARY NOTICE.—A Prospectus of an intended work on tropical Orchideous Plants, by Dr. Lindley, to be published by Messrs. Ridgway, has been sent us. The work is named *Sertum Orchideum*; the meaning is, The Orchideous Garland. It will contain figures of the most superb and interesting kinds. It will be published in twenty-two monthly parts, in folio size. Each part will contain five plates.

CONDUCTOR.

THE TREE DAHLIA.—An arborecent species of Dahlia, was exhibited on November 3rd, at the meeting of the Linnean Society, by Mr. Lambert. It is from Oaxaca, in Mexico, in which country it is said to grow fifty feet high. A plant of this species, we understand, is in the Liverpool Botanic Garden.

CONDUCTOR.

ON HOT-WATER APPARATUS, as inserted in the *Cabinet*, page 49.—In the account which I sent you last month of a small Hot-Water Apparatus, I believe I omitted the name of the workman who constructed mine. It was made by G. Jarnan, brazier and coppersmith, 49, Gracechurch-Street, London; and as he has had some experience in similar apparatus, and is in possession of all my

drawings, &c. he would probably execute every order better than a workman unacquainted with the principle, and to whom the plan was altogether new.— Upon nine weeks' experience, I can report most favourably of the apparatus. It will place the cultivation of orchideous epiphytes within the reach of any one who possesses a three-light melon pit; in fact, within the reach of every one who loves a garden sufficiently to devote a little personal attention to it. My thermometer ranges from 28 to 32 degrees above external air, and seldom varies 10 degrees in the night, and if fine need no attendance from nine P. M. till seven A. M. except a visit from myself about eleven P. M. to see that all is right. The extreme simplicity and success of the plan, induces me to trouble you with this remark, as I am anxious it should be generally known, being confident nothing more is necessary to its universal adoption, in houses or pits on a small scale, and it will probably be found not less efficient on a more extended one.—Your Obedient Servant,—C. C. B. *Cultivator of Cape Bulbs.*

SOUTH LONDON FLORICULTURAL SOCIETY.

The first general meeting and flower show of this society for the year 1836, took place at the Horns Tavern, Kensington, on Wednesday, April 14th. Notwithstanding the severity of the weather, the show of flowers was magnificent. Every table in the extensive ball-room was thickly studded with the most superb specimens, which reflected by the large pier glasses, rendered the display exceeding brilliant. That singularly beautiful plant, the *Tropæolum tricolorum*, attracted peculiar notice. This plant, to the great regret of the floral world, was lost many years ago at the Botanic Garden, Chelsea, and its restoration has created much pleasure. Another plant hitherto unknown to English florists, and which sprung accidentally among some mixed seeds, was presented by Mr. Redding, gardener to Mrs. Marryatt, of Wimbledon. Though not coming within the meaning of the phrase for which the prizes were awarded, namely, "The finest specimens," it was still considered such an acquisition as to call for an additional extra prize. They have named the stranger plant *Brugmansia sanguinea*, the flower being tipped at the edge with a blood colour. Amongst the prizes and specimens there was an abundance of azaleas, salvias, primulas, camellias, oxalis, magnolias, cyclamens, ericas, &c. Mr. Cateleugh, of Chelsea, exhibited a splendid row of geraniums, consisting of all the best-known varieties. The cucumbers, from Mr. Conway, of Fulham, were much admired, being 17 inches long.

PRIZES AWARDED.—To Mr. Harding, of Sydenham, for the best pair of auricles, being Page's "Champion," and Warris's "Blucher." To Mr. Iedgard, of Hammersmith, for the second best pair of auricles, being the "Lancashire Hero," and Hage's "Oldenburgh." To Mr. Dickson, of Acre-lane, Clapham, for the best seedling auricula. This seedling was so much admired that ten guineas were offered for it on the spot. Barnard's *Formosa*, a most superb flower, gained the polyanthus prize for Mr. Harding, of Sydenham. Mr. Lane, of Henlington, Fulham, gained the prize for the six best hyacinths. Mr. Chandler, of Wandsworth-road, for the six second best; as also for the best collection of miscellaneous plants. Messrs. Young, of Epsom, for the second best collection of miscellaneous. Mr. Fairburn, of Clapham Rise, for the third best. Messrs. Young also obtained the prize for the best specimen plant. Mr. Chandler for the second best.

METROPOLITAN SOCIETY OF FLORISTS, &c.

SECOND SHOW, TULIPS, FOR MEMBERS ONLY, RED LION, HAMPTON, MAY 16th

1. Best twelve dissimilar blooms, four of each class, the Queen's plate, value ten guineas, and other prizes for the second and third pans at least. Entrance, 20s.
 2. Best nine dissimilar blooms, three of each class, silver cups or plate, value £5. £4. £3. £2. and £1. Entrance 10s.
 3. Best single blooms, feather and flamed in each class. Entrance, 2s. 6d.
 4. Best Breeder of each class. Entrance, 1s.
- Every member to enter and pay for the flowers intended to be shown on Tuesday, the 3d of May.

THIRD SHOW, ON TUESDAY, THE 24th OF MAY, VAUXHALL,

In honour of the Princess Victoria's birth-day.

1. Best Collection of orchideous plants, not less than twelve, a silver cup, and one or more other prizes.
2. Best collections of six dissimilar rhododendrons, two or more prizes.
3. Best collections of six hardy azaleas, two or more prizes.
4. Best collections of six greenhouse azaleas, ditto.
5. Best collections of six greenhouse plants, not azaleas, ditto.
6. Best collections of six calceolarias, ditto.
7. Best collections of six hardy plants of any kind, ditto.
8. Best collections of six geraniums, three or more prizes.
9. Best collections of six ericas, ditto.
10. Best collections of thirty heart's-ease, amateurs, ditto.
11. Best collections of one hundred heart's-ease, all classes, ditto.
12. Best collections of twelve tulips, one-third of each amateurs, six prizes.
13. Best collections of thirty-six tulips, all classes, three prizes.
14. Best collections of thirty-six varieties of cut flowers, not more than six in any one tribe, two or more prizes.
15. Best specimen plants, to be judged by skill in cultivation and beauty, three to five prizes.
16. Best specimen plants, to be judged by rarity and beauty, three to five prizes.
17. Best orchideous specimen, one or more prizes.
18. Best twenty sorts of roses, not garden varieties, a truss of each.

The Silver Cup, given in honour of the Princess Victoria's birth-day, will be given to the person who shall obtain the greatest number of prizes; and if two persons shall obtain equal number of prizes, then the greatest number of first prizes. Entrance—members, 2s. 6d. each class; non-members, 5s.

No person to be permitted to show for prizes, unless notice be given in writing to the secretary, or personally, at a meeting on or before Tuesday, the 17th May, that exhibition tickets may be forwarded, without which none can be admitted.

FOURTH SHOW, JUNE 16th or 23d.

So far as any or all the foregoing flowers can be exhibited in good order, the prizes and conditions to be the same. The following are additional.

1. Best twelve pinks, amateurs, six prizes.
2. Best collection of ditto, all classes, three prizes.

3. Best twelve ranunculuses, amateurs, six prizes.

4. Best collection, ditto, all classes, three prizes.

5. Best twelve sorts of China noisette, or other roses, not garden varieties, to be shown either in pots or single trusses of bloom, on one stalk, amateurs only, two prizes.

6. Best collection of ditto, all classes, two prizes.

7. Best twenty-four garden varieties, and not noisette, climbing, or China, to be shown in a single open bloom of each, as dahlias are exhibited, amateurs only, two prizes.

Best collection of ditto, all classes, two prizes. Entrance for each class—members, 2s. 6d. ; non-members, 5s.

No person to show, unless notice be given in writing, or personally, on or before the general meeting, 7th June.

FIFTH SHOW, JULY 20—CARNATIONS AND PICCOTEES—VAUXHALL.

Members only.

1. Best twelve dissimilar blooms, carnation, five or more prizes.

2. Best twelve dissimilar blooms, piccotees, white ground, five or more prizes.

3. Best twelve yellow or coloured grounds, one prize.

4. Best seedling that has not taken a prize before, and has been raised within two years, and not out, one prize. Entrance—5s. each stand; 2s. 6d. each seedling.

None to show, unless the flowers are entered and paid for, before or at the meeting, 5th July. Flowers received till one o'clock on the day of show.

The members will dine together in the Royal Box, at three o'clock, and be at liberty to wait the evening's gala.

SIXTH SHOW, AUGUST 11, VAUXHALL.

In honour of the Queen's Birth-day.

1. Best Collection of thirty-six plants of every kind, Silver Cup, and two or more other prizes.

2. Best collections of six cockscombs, two or more prizes.

3. Best collections of six balsams, ditto.

4. Best collections of six greenhouse plants, ditto:

5. Best specimens for skill and beauty, two to five prizes.

6. Best ditto for rarity and beauty, two to five prizes.

7. Best twelve dahlias, amateurs, growing under two hundred plants, and not placing any seedling in the stand.

8. Best twenty-four, all classes.

9. Best one hundred, exhibited in boxes, stands, or otherwise, provided by the grower, but not containing more than five rows in depth, and not more than two feet six inches from back to front, to preserve uniformity.

10. Best seedlings of 1835, self.

11. Best ditto, mottled, shaded, or striped.

12. Best ditto, of 1836, self.

13. Best ditto, mottled, shaded, or striped.

14. Best thirty-six varieties, in pots, all classes.

The dahlia prizes will be in number proportioned to the entries of each class. —Entry for each class of plants, and also for seedlings, dahlias—members,

2s. 6d.; non-members, 5s. Entry for each class of dahlias—members, 5s.; non-members, 10s.

Every person must give notice of showing in writing, or personally, at or before the general meeting, 2nd of August, that exhibitors' tickets may be forwarded.

SEVENTH SHOW, SEPTEMBER 8th, VAUXHALL.

Plants, as far as they can be shown in good order, the same as before.

Dahlias all as at the August show—prizes according to the number of entries.

Day of entry on or before the general meeting, 16th August.

EIGHTH AND LAST SHOW, SEPTEMBER 27th, SALTHILL, NEAR WINDSOR.

Prizes, plan, entry, &c. of dahlias as before, and entrance on or before the 6th of September.

LIST OF FLORICULTURAL AND HORTICULTURAL MEETINGS,

TO BE HELD IN MAY

SHEFFIELD, *Wednesday, May 4th.*

WAKEFIELD, *Wednesday, 11th.*

HUDDESFIELD, *Thursday, 12th.*

LONDON HORTICULTURAL SOCIETY, to be held in the Gardens at Chiswick, *Saturday, 14th.*

METROPOLITAN SOCIETY, to be held at Hampton, *Monday 16th.*

CHELTESHAM, *Tuesday, 17th.*

ROYAL BERKSHIRE, at Wallingford, *Wednesday, 18th.*

SUNBURY, *Wednesday, 18th.*

MIDDLESEX, *Thursday, 19th.*

BATH, *Thursday, 19th.*

DORKING, (Surrey,) *Saturday, 21st.*

METROPOLITAN SOCIETY, *Tuesday, 24th.*

A CATALOGUE OF FINE RENUNCULUSES, RAISED FROM SEED,

AND CULTIVATED BY J. WATERSTON, PAISLEY.

<i>Red Spotted.</i>		
Addison,	Janthe,	Sir H. Davy,
Agandecca,	Lord Cochrane,	Temera,
Alerope,	Linnaeus,	Tosca,
Alexander,	Maculata Suprema,	Ullin,
Belina,	Maddock,	Ulba,
Bragella,	Mimrya,	Virgo,
Canning,	Madam Pasta,	Virginia,
Cupid,	Marshall Ney,	Warren,
Delicate,	Miss Stephens,	Zephyrus.
Dr. Hunter,	Mrs. Stephens,	
Duke of Hamilton,	Mrs. Salmon,	<i>Purple Spotted.</i>
Flaxman,	Pindar,	Acantha,
Flora,	Pope,	Calypso,
Ganymede,	Poussin,	Captain Cook,
Girard Don,	Ramsay,	Dr. Chalmers,
George 4th,	Rembrandt,	Duke of Buccleugh,
Guercino,	Raserrana,	Duchess of Hamilton,
Guido,	Salus,	Florida,
Hogarth,	Salvator Rosa,	Lord Althorpe,
Hooker,	Shakespeare,	— Holland,
	Sinclair,	Locke,

Sir Sidney Smith,
— William Wallace,
Sarah,
Smollet,
Skiroan,
Tannahill,
Vandyke,
William 4th,

Purple.

Augustus,
Barry,
Brougham,
Chaucer,
Dey of Algiers,
Dunbar,
Gray,
Hiram,
Rob Roy,
Spenser,
Swarran,

Yellow, edged, Spotted, &c.

Akenside,
Domenichino,
Epeus,
Fresnoy,
Havilah,
Holbein,
Midias,
Plato,
Sir W. Boscawen,

White.

Artemis,
Fairy Queen,
Februa,
Hesperus,
Mary,
Sir P. Lely,

Rose edged and Mottled.

Adelaide,
Amaranthe,
Campbell,
Catalani,
Cicero,
Comala,
Cornegio,
Crimora,
De Heem,
Dryden,
Earl Grey,

Europa,
Earl Grosvenor,
Fingal,
Handel,
Heath,
Helena,
Hercules,
Homer,
Howard,
Junthe,
Idulia,
Leda,
Lord Cathcart,
— Eldon,
— J. Russel,
Marquis of Douglas,
— of Stafford,

Maria Louisa,
Marshall Macdonald,
Melona,
Michael Angelo,

Moina,
Morna,
Milton,
Mrs. Siddons,
Napoleon,
Prince Poniatowsky,
Princess Charlotte,
R. A. Smith,
Raphael,
Rubens,

Sir G. Kneller,
— Jos. Reynolds,
— Walter Scott,
Sparkling Ruby,
Sulmalla,
Thomson,
Thornhill,
Timanthes,
Titian,
Waterloo,
Wellington,
West,
Wilkie.

Rosy.

Burnet,
Captain Parry,
Caroline,
Falconer,
Fergusson,
Haydon,

Holloway,
Moore,
Naverino,
Rose Magnificent,
— De Perse,
— Stamboul,
— Superb,
— Unique,
Victoria,

Purple edged and Mottled.

Apelles.
Armata,
Blucher,
Bruce,
Burns,
Byron,
Claude Lorraine,
Cowper,
Davey,
Deiopea,
Dr. Young,
Duc de Reichstadt,
Esther,
Fillan,
Fuseli,
Gavin Douglas,
Garrick,
Gainsborough,
Gloria Forum,
Goldsmith,
Henry Kirke White,
Henning,
Hooker,
Home,
Juno,
La Prouse,
Lady Susan Hamilton,
Madam Mere,
Raimback,
Ryno,
Sir J. Lawrence,
— H. Raeburn,
— R. Wilson,
Sterne,
Tam O'Shanter,
Virginus,
Wilson,
Weber,
Westall,

Mr. Waterston, of Paisley, Scotland, has been the most successful raiser of Seedling Ranunculuses that I have known, I, therefore, with pleasure send you this list of his seedlings for insertion in the *Cabinet*, that the readers may have some knowledge of what we possess of this esteemed flower, in this part of the country.

ST. PATRICK.

Edinburgh, Feb. 12th, 1836.

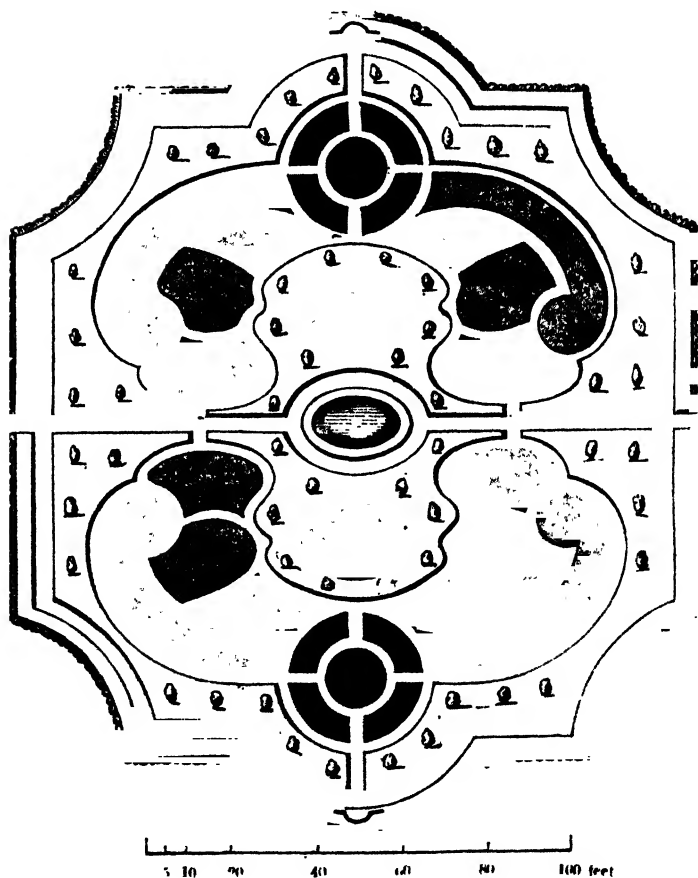
ORIGINAL COMMUNICATION.

ARTICLE VII.—DESIGN FOR FLOWER-GARDENS, No. IV, Design 5th.

Communicated by Amicus.

THE Plan represents a Flower-Garden, with gravel walks, box, or other edging, and some grass introduced upon which dwarf ornamental flowering shrubs may be planted. The centre is occupied by a small bason, for gold and silver fish.

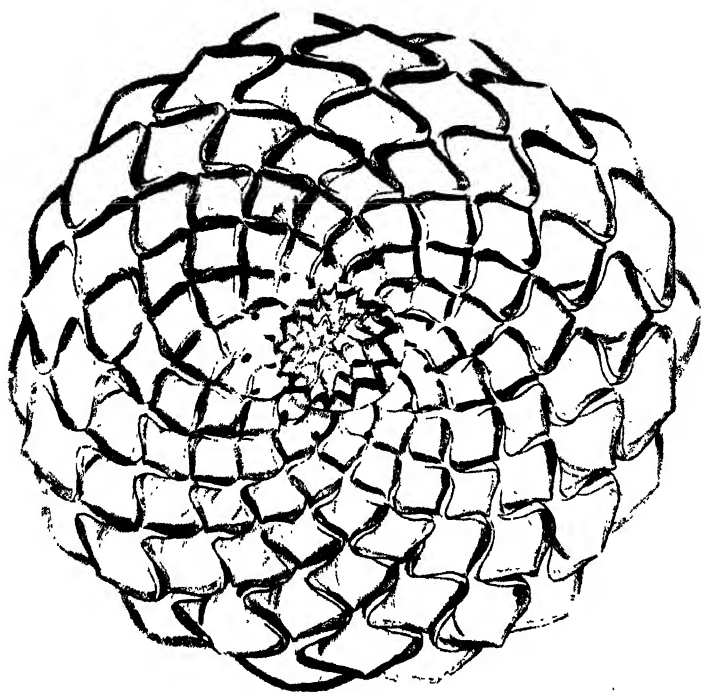
Fig. 10.



REMARKS.

ON THE PINK.—The stem should be strong, elastic, and erect, and not less than twelve inches high. The flower should not be less than two inches and a half in diameter, the petals should be large, broad, and substantial, and free from large, coarse, deep notches, or indentures; in short, they approach nearest to perfection when they are rose-leaved, or without any fringe at all. The broad end of the petals should be perfectly white and distinct from the eye, unless it be a laced pink, which should be bold, clear, and distinct, leaving a considerable portion of white in the centre, perfectly free from any tinge or spot. The eye should consist of a bright, rich, dark crimson, or purple, resembling velvet; but the nearer it approaches black, the more it is esteemed; its proportion should be about equal to that of the white, that it may neither appear too large nor too small.—*A. B.*

ON NEAPOLITAN VIOLETS.—Neapolitan Violets may be removed from the frames to the open borders. This fragrant flower is often in great request; and as many feel desirous to have the duration of its flowering prolonged throughout the winter, we feel much pleasure in giving insertion to the following excellent directions, kindly communicated to us by Mr. J. W. Thomson, gardener to Alexander Baring, Esq., Grange Park. Early in May the plants are taken from the frames, the whole of the earth being shaken from the roots. The largest are divided into three plants, the smaller into two; they are then planted in beds, four feet wide, in rows, one foot apart, and twelve inches in the rows. An east or west border should be chosen, and previously to planting be well dug, and highly manured with well decomposed animal manure. If the summer prove dry, they will require to be frequently watered; they should remain in the beds till the middle or latter end of September; they should then be taken up with a portion of soil adhering to the roots, and potted singly into pots (32's) filled with a compost consisting of equal parts of sandy loam, well-decomposed leaves, and rich animal manure, or bone dust, but the latter is preferable. When potted the plants should be well watered, and placed in a shady situation for a fortnight. About the middle of October the plants are plunged into a pit filled with old tan or leaves, and when so placed the plants should not be more than three inches from the glass; this is of great importance, for if the pots be plunged deeper into the beds, the plants are very liable to damp off in the winter months, and during this period they require but little or no water. Air should be freely admitted at all times, except in frosty or wet weather; for if wetted by rain, they would probably damp off. Mats should be used to protect them from frosts, and where flues are employed, the temperature should not exceed 40° or 45° of Fahrenheit's thermometer. The plants require to be frequently looked over, and decayed leaves removed; and during summer the runners should be taken off, as they tend to weaken the plant.



Carpa
of Capota

BATH ROYAL HORTICULTURAL AND FLORAL SOCIETY.—The third evening meeting of this society, for Horticultural and Floral discussion, took place on Tuesday, March 1st. at Collings library, Captain Marsh in the chair: the proceedings were in the highest degree interesting. The chairman read a valuable paper upon an improved method of cultivating celery—R. Godfrey Esq., also read an elaborate, comprehensive, and very entertaining paper on the auricula, embracing its varieties, mode of culture, &c. &c., which, though it extended to nearly half an hour, commanded the most strict attention, and elicited the applause of all present at its close. Mr. J. Salter, with his usual liberality, sent a numerous and splendid collection of hyacinths, early tulips, camellias, and other plants, which were greatly admired. R. Godfrey Esq., sent a beautiful erica; and a very fine seedling geranium was sent by B. Batsford Esq., of Weston Lane.

REFERENCE TO THE EMBELLISHMENT.

Harris's Acme of Perfection Dahlia.—A Seedling of 1835, raised by Mr. John Harris, Florist, Upway, Dorsetshire, who has been very successful in raising many other superior flowers.

FLORICULTURAL CALENDAR FOR MAY.

Plant Store.—Very little fire-heat will now be required, only applying it in cold weather. The plants will progressively require an increase of air and water. If any want an increase of pot-room, it should be attended to as early as possible; otherwise, if not watered frequently, the foliage or flowers will be liable to suffer, turn brown, or fall off the plant. Keep the plants free from decayed leaves, moss, &c. Frequently stir the surface of the soil. When any casual irregularities in form occur, prune or tie the shoots as required. It is a good time for propagating by cuttings, suckers, seeds, &c. placing them in moist heat.

Tender or Store Annuals.—When it is desired to have some plants to bloom late in autumn, as Balsams, Cockscombs, Broccollias, &c. seeds should now be sown, and the plants be potted off into small sized pots as soon as they are large enough, using a rich soil.

Greenhouse.—During the early part of May, a few frosty nights generally occur, in consequence of which, it is advisable not to take out the general stock of plants before the middle of the month, or even in cold situations, before the 25th. Whilst the plants, however, remain in the greenhouse, let them have all the air that can be given during the day, and at nights, if no appearance of frost. Particular attention will now be required to afford an ample supply of water to free-growing kinds of plants. Frequently syringe them over the tops at evening, just before sun-set. If any of the plants be attacked with the

green fly, or any other similar insects, apply a sprinkling of tobacco-water, diluted with water, by adding to one quart of the liquid five of water; in applying which to the plants, syringe them under, as well as on the upper surface of the leaves: a repetition will rarely be required. This mode of destroying the insects is far preferable to fumigation, no injury being sustained by it, even if applied in a pure state. The liquid can be obtained of tobacconists at 10d. or 1s. per gallon. Inarching Orange or Lemon trees may still be performed. It is a good time for increasing plants by cuttings, striking in moist heat. Greenhouse annuals—as *Salpiglossises*, *Globe Amaranthuses*, *Balsams*, &c.—should be encouraged by a little warmth, and shifted into larger pots, early in the month; so that the plants may make a show, to succeed the removal of the general collection of greenhouse plants. Cuttings or suckers of *Chrysanthemums* should now be taken off, if not done before.—See Vol. I. pages 73 and 121; and Vol. II. pages 83.

Flower-Garden.—Continue to protect beds of *Hyacinths*, *Tulips*, &c. *Carnations* in pots should be encouraged by manure water, &c. in order to grow them vigorously: care in striking will be required. By the middle of the month, half hardy annuals, as *China Asters*, *Mari-golds*, &c.—may be planted out in the open borders. Some of the best kinds may be potted, as done to the more tender sorts. Many kinds of greenhouse plants—as *Petunia*, *Salpiglossises*, *Salvias*, *Fuchsias*, *Heliotropes*, &c.—should now be planted out in the open border. *Dahlias*, that have been forwarded in pots, frames, &c. may be planted out towards the end of the month. Seedlings may be pricked out in a warm situation, having a deep, fresh, rich soil. When *Stocks*, *Mignonette*, *China Asters*, &c. are wished to bloom late in the year, seeds may now be sown, either under frame, or on a warm border. Slips of *Double Wallflowers* should now be put in under a hand-glass. Seeds of biennials—as *Sweet Williams*, *Scabious*, *Campions*, &c.—should now be sown. *Tube-roses*, for late flowering, should now be planted, either in pots or warm borders.

Auriculas.—(See page 47, Vol. I.)

Carnations.—(See page 23, Vol. I.)

China Rose Cuttings.—(See page 48, Vol. I.)

Ranunculuses.—(See page 25, Vol. I.)

Rose Trees.—(See page 23, Vol. I.)

Tulips.—(See page 24, Vol. I.)

Violets.—(See page 48 and 72, Vol. I.)



Recurv.
Immitable Lobb.

THE FLORICULTURAL CABINET,

JUNE 1ST, 1836.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.—ON SNAILS, &c.—BY MARIA.

"JUDENIS," of Canonbury, proposes that oil should be put into the pans to prevent snails from reaching the flower-pots; assuredly oil applied to the bodies of those insects that breathe through their bottles, such as wasps, hornets, &c. are immediately killed by it, but then it must be in a liquid state, whereas oil when exposed to cold becomes congealed, and then, I should think, the snails might crawl over it uninjured, besides which, it would be expensive in a large collection. I have tried with good effect the trimmings of horses' heels and manes cut small, strewed round the root, and if dug in with the mould all the better, for then the slugs will be prevented from attacking the bulb or stem under the earth; the prickliness of the horse-hair, and its inclination to adhere to the moist coat of the insects is so hurtful that I here found it quite effectual. Any groom or coachman will save a large quantity of these trimmings in a short time, and it costs nothing, makes no moss, and takes little time in the application. I have found a ring of tar effectual in cleaning a Daphne of Ants, they had congregated in such numbers on a handsome shrub as to threaten serious injury, and I had a ring of tar placed around it two inches from the stem; in a day or two all the ants died, not being able to pass the barrier to return to their nests. But, as this will only do for an occasional plant, I would recommend a simple plan, adopted by my gardener, and which has nearly cleared the beds and lawns of a profusion of these troublesome insects. He makes a hole several inches deep with a pointed stake exactly in their track wheresoever he observes one; into this pit they fall headlong, and the sides being of soft earth, and perpendicular, they fall back and die by hundreds, or he kills them by again putting in the stake. The gardener assures me he shall eradicate the whole colony in another season.

Clifton, 1836

ARTICLE II.

ON THE CULTURE OF GINGER, ZINZIBER OFFICINALLIS.

BY MR. HENRY MARKHAM, LINNÆUS-STREET, HULL.

THIS plant is a native of the East Indies, requiring the heat of the stove. It grows very freely in a mixture of light rich loam, peat, and river sand, care must be taken to give a good drainage at the time of potting.

During the time the roots are torpid, very little or no water should be given. When they are in full growth, a good supply is requisite to keep them in a healthful growing state.

They are easily increased by division of the roots during the time they are torpid, nothing further is required than to pot the divided parts into such pots as are suitable to their size, and treat them precisely as recommended for the old plants. In January or February, when the roots are dormant, is the most proper time for taking up. After having been clean picked and well washed, and exposed to the sun till sufficiently dry, it is fit for use.

February, 1836.

ARTICLE III.

ON THE CULTURE OF THE NEAPOLITAN VIOLET.

BY A PRACTICAL LADY AMATEUR.

IN the *Cabinet* for March last, "C. S." inquires "what soil and management best suits the Russian and Neapolitan Violets, to secure *profuse* bloom?" I have both these Violets. They are planted in a *loamy soil*, and blow *abundantly*, with but *few* leaves. The Russian Violet this last season in a *sunny* spot bloomed from the first week in October to the middle of March. The Neapolitan Violet in the *shade* (that is with only the morning sun) in a border sheltered by lime-trees came into bloom the middle of February, and continues blooming. I *had* the Neapolitan Violet planted in a border to the south, but it did not thrive, and therefore removed it to its present situation, where it flourishes. When the frosts begin, I give the Neapolitan Violet the protection of a hand-glass; or of a frame made in the shape of a hand-glass, covered with oiled paper, and continue it till they are over; taking it off, a short time, every mild day. I have tried the Neapolitan Violet in a pot, wishing to have it in the drawing-room during winter, but I could not succeed with it, and was obliged when May approached to plant it in the border again, without its having bloomed.

Beds. April 19.

ARTICLE IV.—ON THE TREATMENT OF *LONICERA FLEXUOSA*,*So as to cause it to bloom profusely, and of the Russian Violet.*

BY MARIA.

BEING highly gratified with the *Floricultural Cabinet*, and having derived so much benefit from that publication, I consider it incumbent on me to impart all the information in my power through the medium of that excellent work. I therefore beg to inform "C. S." of Candover, that I have seen a *Lonicera flexuosa* that had been cut back to keep it about six feet high, which was beautiful from the profusion of blossom mixed with the dark green leaf, and of such *close* growth, that not a *particle* of wall was visible; it is naturally wild and straggling, and will not flower so well as any other honey-suckle, unless kept in order with the pruning-knife. I do not think the Russian Violet likes the confinement of a pot, it takes some time also to get reconciled to the ground before it will blow *well*. I have this year discovered that the birds nip off the early buds, and I have been preparing some small nets for their preservation, with which my gardener is much delighted; I happened to have some coarse scarlet yarn, and being in haste to guard my violets, I recommenced my work, and find that it happens to be particularly effectual as the birds will not approach any thing that is red. Perhaps your correspondent may like to learn the size of my nets. I begin with *one* stich and on that I net two stiches, and I continue to widen at the *end* of each row till I come to 30 stitches, and then at the end of every row I narrow, that is, take two stitches together, till I come to one stitch, when a square is produced which can easily be fastened to the ground with sticks, and to the wall with nails.

ARTICLE V.—METHOD OF OBTAINING DWARF PLANTS OF THE CHINESE CHRYSANTHEMUM.—BY J. K.

THE following easy method of obtaining dwarf Plants of the above beautiful autumn flower I have practised with success this season, and I believe it is not generally known. In the month of September, when the plants have begun to show the flower-bud, take the plants from which you want to have dwarf ones, and tie some moss and mould round the stalk, about a foot or half a foot (according to the height of the plant you desire) from the head of the plant, tie it round tight, and in a fortnight roots will strike to the moss, when it may be taken off and potted, by this means you will have a pretty dwarf Plant at once, without much trouble: I have this season several of the tall growing kinds in pots about a foot high, looking extremely beautiful.

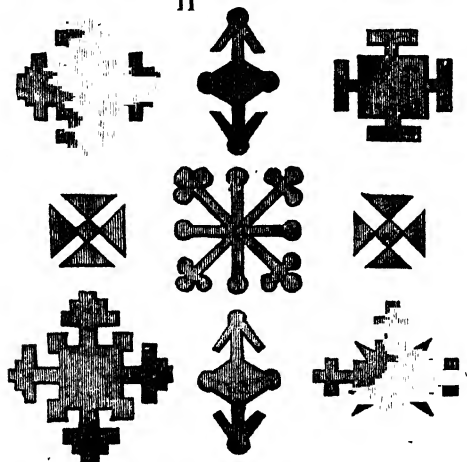
ARTICLE VI.—ON FLOWER-BEDS, BASKETS, &c.

BY GOOSEBERRY.

HERewith I send some sketches of flower beds, &c. the patterns of some I have in my own garden.

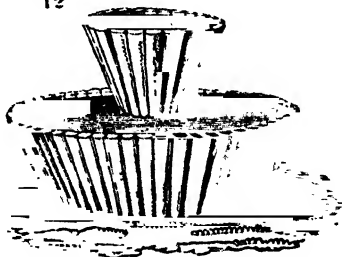
I have some beds of Fig. 11, in a Chinese garden, which they suit extremely well, and produce a very pleasing effect.

11



Many of the correspondents of the *Cabinet*, having asked how can they have a succession of flowers in a small space, I recommend for their adoption the Chinese method of growing plants, (the bloom at the same time), in boxes which are made the shape fixed upon, and sunk in the earth with fresh ones as the flowers die away. The Rustic basket, Fig. 12, when filled with plants has a remarkable

12



pretty effect, and is well suited to a confined space. The sides are made of fir trees split, and either left with the bark on, or painted filled with earth, and planted with flowers.

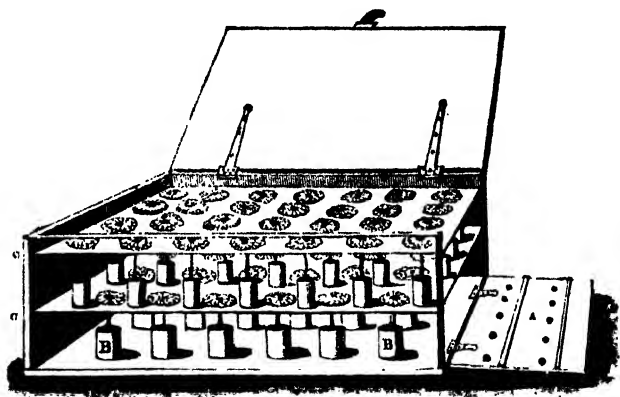
ARTICLE VII.

DESCRIPTION OF A BOX FOR CONVEYING FLOWERS IN.

BY E. T. E.

IN compliance with the wishes of "J. K." I have attempted to demonstrate a box (Fig. 13) for the purpose to which none I have seen are superior, the flowers at the end of a long journey having the appearance of only been just gathered.

13



The box is of deal and can be made by any village carpenter. (a) is one of the sides with hinges, in order to facilitate the arrangement of the flowers. (n n) are small boxes of tin filled with moist sand to receive the stalks. (c c) are slides which are let down level with the tins when arranging the flowers, and are supported by the side (A) when closed; one side should have a few small holes in it, to let in a little air, but not a draught. This mode of conveyance has given general satisfaction to those acquainted with it.

ARTICLE VII.—GLEANINGS FROM OLD AUTHORS.

BY TULIP, No. 3.—From *Reus Flora*, 1676.

As the Tulip season is advancing, perhaps, the following extracts may be amusing to some of your curious readers who are not acquainted with the work.

"The division of Tulips, according to Gerrard Parkinson, Clusius, and Perrarius, is into three sorts, *Præcoces*, *Medias*, and *Serotinas*;

early, middle, and late flowering Tulips, whereas, there are but two primary distinct kinds, *Præcoces* and *Serotinas*."

The following is the manner of his description of the named Tulip flowers, and of which there are about 179, besides those he does not describe.

viz. <i>Præcoces</i>	36	} 179 I have selected two only, both of which I have.
<i>Medias</i>	136	
<i>Serotinas</i>	9	

"*Semper Augustus*, heretofore of much esteem, hath a flower not very large, but well veined and striped with deep crimson and pale yellow, the bottom and *Tamis* dark violet purple."

* "*Royal Vesta*, or *Nonpare*, is a better and more constant flower than the last (*viz*, *Vesta*); the colours are carnation, crimson, and white, when the flower makes well, the bottom is white and the *tamis* blue."

"For various colours Tulips most excel,
And some *Anemonies* do please as well;
Ranunculus in richest scarlets shine,
Auricula and *Bears-ears* may with these in beauty join.
But yet if ask and have were in my power,
Next to the *Rose* give me the *July-flower*."

The above above few lines are written at the close of the article on *July-flowers*, and it appears at that period the supply for the growers were brought from Holland, Flanders and other parts of the Netherlands, he inserts a list of three hundred and sixty by name; he says, "multitudes of these (seedlings) are often brought over to London, and there sold at mean rates to gardeners who sell them again to others, who delight in flowers commonly for 12 pence a layer; but most of these mercenary fellows about London are very deceitful, and whoever trusts is sure to be deceived, as I myself have often been, even by such of them as I had by many benefits obliged."

"I have heard but of very few good flowers that have been raised of seeds by any in England."

ARTICLE VIII.—ON THE CULTURE OF BLETIA TANKERVILLIÆ.

BY MR. HENRY MARKHAM, LINNÆUS-STREET, HULL.

IN reading over your *Floricultural Cabinet*, I find J. R. W., wishful, that some correspondent of your's would give him some information, how to treat the *Bletia Tankervillæ*, so as to cause it to produce its singular and splendid flowers. I therefore send you a few remarks on the culture of that plant.

It is very easy of culture, and will flower freely if potted in, a soil composed of equal parts of light sandy loam, peat, and river

sand. Let the pots be plunged up to the rim in a bark bed, or other brisk heat, during the time the roots are in a growing state, and give a good supply of water.

When out of flower, and the roots become dormant, take up the pots and place them in a shady and dry situation; allow the soil to become dry, or nearly so, until they begin to grow again; as soon as this is observed, repot them, and plunge as before directed, and they will flower fine.

ARTICLE IX.—ON INARCHING AND LAYING STOVE, GREENHOUSE, AND OTHER CURIOUS OR RARE PLANTS.

BY A FOREMAN OF A LONDON NURSERY.

THERE are many of the most curious and splendid flowering stove, greenhouse, and hardy shrubs, which are only to be propagated but by the methods of either Inarching or Laying them, or if they can be struck from cuttings they seldom grow in a healthy condition afterwards. But a weakly growing species inserted upon the stock of a free growing kind, will cause it to bloom far more profusely and vigorously. An additional advantage too is afforded, by being enabled to obtain a plant of considerable size in a short time. I have therefore, drawn up some practical observations upon the method which I have pursued most successfully for twelve years.

Inarching is a species of grafting differing from it in these particulars, that whereas in grafting, the scion is at once totally separated from its parent plant, and the head of the stock is cut clear off before the splicing takes place; here, on the contrary, neither the scion is separated from its parent, nor the head of the stock cut away, until the union becomes so far complete that the first is unnecessary, and the latter injurious. It is in consequence much preferable to the common grafting, for evergreens in particular; it is principally practised as the best means of multiplying all the double varieties of Camellia and plants of similar habits; because their strong leaves, if only for a few days deprived of their regular support, by being cut clear from the mother stock, if not covered closely with a glass will be certain to wither and fall off; after which, there will be but very slender chance of the scion's completing an union: it is performed as follows:—

Having provided a stock, which should always be some of the coarser, free kinds, of the same genus of plants, and nearly of the same diameter as the shoot which is intended for inarching; cut a thin slip, from two to three inches long, and about one third or something better of the whole thickness, smoothly off from each of them,

in the clearest part of the stem with a small sharp knife ; (a most necessary instrument for this business,) the bark of each must then be fitted together in the most exact manner, at least on one side, and tied perfectly tight with good matting ; they must be clayed in the same manner as grafts ; and, as being within doors in a warm house will occasion the clay to become over dry, and liable to crack, they should, at least in dry weather, receive two or three times a week, some water from the rose of a water pot, or by means of a syringe, to preserve it in a proper moist state, observing to do it in the evening lest the leaves should get scorched by the rays of the sun : a little moss tied neatly round each ball of clay will prevent the water being so frequently necessary : which is in my opinion very desirable. Eight or ten weeks will in general be found sufficient time for them to unite ; at all events, by that time, I think, they may be partially separated from the parent plant by cutting the in-arched shoots better than half way through ; and if, on trial, they are found to be united, and bear that operation well, they may in a few days afterwards be entirely cut off and placed in a shady part of the house, where they must be kept moderately syringed as before, and some additional shade given according to the state of the weather for two or three weeks ; during which time, they may be untied, and the top of the stock cut off in a neat manner ; and also any unnecessary part of the bottom of the scion that may remain : let a little clay be again applied, that these fresh wounds may have sufficient time to become properly healed, which will take place in a few weeks. In this manner have I succeeded with *Myrtus Pimento*, and other plants allied to it, which are particularly difficult to strike or propagate, by any other means, on the common myrtle with tolerable success ; and also many other plants of the same description upon their kind.

In laying, choice should be made of the young tender shoots of the present year, the soft bark of which will sooner form a callosity, and produce roots, than that of any of the preceding years growth. It is particularly necessary to observe, whether the plant intended to be layed is of a brittle nature or not ; for if it is, it will be necessary that the shoots be pegged gently down to the surface previous to laying, and thus left, until their tops naturally acquire a perpendicular direction, which they will do in a few days ; without this precaution it will be extremely difficult to tongue them without cracking, or breaking them off : but if treated in this manner, the most brittle may be layed without danger.

By tonguing is meant, the operation of cutting a small longitudinal scalp about half an inch in length, on the inner side of the heel

or bend which is to be inserted into the earth; about one-third of it should be cut off in a transverse direction; it being so placed, that the transverse cut may be immediately on or below the joint; but by no means is the whole of it to be cut away, as practised by some, it being the part which in most instances produces the first fibres. Having the layer thus prepared, the earth must be opened with the hand about three or four inches deep, and in the direction of the shoot, into which opening, it would be advisable to put a little fresh loam or sand for the immediate reception of the layer; which should be fixed therein at least three inches under the surface, the tongue should be gently twisted sideways so as to prevent its resting within the heel or bend, and the mould immediately closed tight over it; as many layers as are wanted being thus made, let the whole have a moderate watering to settle the mould, and be set or plunged in a good growing heat; as it is of considerable importance to keep the parent plant in a free thriving state.

There are many plants which produce roots so freely, that should a branch even touch the surface of the ground, they strike almost immediately; these every gardener will soon become acquainted with by their natural efforts, and therefore, will find it sufficient for their increase merely to insert them in the mould: noting however, that a slight twist on the part inserted will considerably promote their rooting.

It is a conclusion drawn from several experiments, that the layer, which is inserted to a proper depth, roots sooner and better than that which is laid nearer the surface; the self-evident reason of which is, that the deeper they are the air is better excluded, and there is a more regular degree of moisture for the nourishment of the young fibres, when they make their appearance. I must also observe, that no part of the shoot should on any pretence be covered with the mould, except that which is meant to produce roots, as the covering of the whole renders it extremely liable to rot: therefore, if any particularly tender plant should happen to be thus treated, it would evidently endanger the whole stool. This may seem an unnecessary observation to some, but I can assure such, that I have seen layers made by people, who thought themselves extremely clever, where none of the parent stool were left in sight, except the tops of each individual layer: what was the consequence? in a few months, one half at least of the stools were without the least spark of life remaining; and of the rest which were so fortunate as to survive, perhaps not one-tenth of the shoots laid, produced plants

ARTICLE X.—A FEW REMARKS ON THE DAHLIA.

BY A STAR IN THE EAST.

THE Dahlia, although one of the most magnificent flowers cultivated, is as much, or more, subject to variableness and uncertainty than any other flower we have; and amongst the best varieties grown, there is not one upon which reliance can be placed.

In one garden, we observe some particular sort blooming in the greatest perfection, whilst in another we see the very same kind having nothing but imperfect, even single blossoms; and thus it is we find the flower spoken of in the highest terms by some persons, whilst others discard it as being worthless. This has frequently occurred, and I would mention the names of some individuals who have done so, and who are experienced growers to a great extent, and well know the properties constituting a good flower; such as Messrs. Brown, Widnall, Squibb, Brewer, Harrison, Levick, &c. &c. They have, even when grown the first season, discarded such flowers as Widnall's Granta, Douglas's Criterion, Aldam's Superb Yellow, Lady Fordwich, Harrison's Unique, Metropolitan Perfection, and many others of equal merit; but when subsequently seen by them in the collections of other growers, their properties have been acknowledged to be of the very first rate quality.

With regard to the opinions advanced on the qualifications required to form a good flower, they are almost as endless in variety as the Dahlia itself, for every grower has his own opinion. However, it must be generally admitted that *form* must stand *first*, colour next, and size last. In my opinion, the rules laid down in a former number of the *Cabinet* is a correct criterion, by which judges of the flowers ought to be governed. I have many times seen instances at the different Dahlia exhibitions I have attended, where the first prize was awarded to a stand of flowers, merely because it contained the sole merit of having larger flowers than its rivals, and far superior formed flowers, but less in size, come in for a second or a third prize. I have seen also, that, in the prizes of the different classes, the same sort of arrangement has been made, and Wilmot's Superb has been placed first, whilst Springfield Rival comes in as a fourth, although the bloom was perfection itself in form and colour. In fact, I have sometimes concluded, that in the opinion of some, it mattered not how ugly the flower might be, even if disfigured with an eye, it was sure to gain a prize if it were but sufficiently large. I venture to mention for the guide of those growing large flowers, the societies at Lynn, Maidstone, Hertford, and Wakefield. If one of the commit-

tee, or the secretary of a society would take the trouble to attend the next Dahlia exhibition of the Metropolitan Society of Florists and Amateurs on August 11, or September 8th, he might then have a good idea of deservedly awarding prizes. Or even take the rules I have before alluded to as a criterion. We should not then see such monstrous 'broomhead' flowers, utterly void of good form, taking the first, or even any prize at all, in an exhibition! The stands would no longer be disgraced with the broomhead size, and more unique in form would be substituted in lieu thereof.

It is surprising to observe the different constitutions of the Dahlia, some kinds produce the most perfect blooms when almost impoverished, when on the other hand, if they are grown luxuriantly, all the blooms come with an eye, or otherwise imperfect. Whereas some kinds if not grown in fresh good soil, produce small half double blooms, and during the whole season, not a good bloom, from the plant so grown, can be produced. The season and situation, likewise, have a great effect upon some of the kinds, as well as extensive propagation. This was the case with the Newick Rival last season, to the disappointment and vexation of many; which Messrs. Young and Penny so extensively propagated, and scarcely a single plant produced a bloom that might be called good, only with the exception of the first few cuttings taken off before the parent root was too much exhausted; and it is to be feared some of our highly described flowers will disappoint several, merely because they have been so much propagated. Persons raising seedling Dahlias, should not dispose of them until they possess a sufficient quantity of roots of each, so that only a few will be required from each individual root. I am persuaded if this method was adopted, our new flowers would answer more to the description given of them in the catalogues.

The greatest alteration generally takes place with seedlings. Some kinds when grown in the seed-beds in poor soils appear very beautiful, but, when propagated the following season and bloomed, they prove to be every thing but perfect and good, and disappoint the expectation previously formed of them. I have seen instances where the raiser of seedlings, plants them out with all the care he takes with his general collection, in fresh rich soil, &c., thinking, probably, that if they proved good with that treatment, he might rely upon their appearing so ever afterwards—but in this, disappointment generally occurs, for when the situation is changed, and numbers of plants are dispersed amongst "The Fancy," some may produce fine good flowers, whilst others are utterly worthless. The most sure way of

judging of the merits of a seedling is, to grow it two years in situations as opposite to each other as possible. If this were practised more generally, disappointment, which leads people to think that they are imposed upon, would not be so prevalent, as is the case at present.

Should the Editor think well to give the above rambling observations insertion in the *Cabinet*, I shall feel obliged. My next paper shall contain a few observations upon the Classing of Dahlias, and remarks upon those now circulated throughout the country, under so many different names, &c.

ARTICLE XI.—COLLECTANEA.

BY J. K.

PLANT FROM MADAGASCAR.—M. B. Delessert, has presented to the French Academy of Sciences, a curious plant from Madagascar, sent to him by M. Gondot, now travelling for the French Museum. It belongs to the Naidæ, and was first discovered by Du Petit Trouës, who gave it the name of *Auvivender Australis*. Its leaves are supported by long stalks, and are destitute of parenchyma which gives them the appearance of lace; they are half a foot long, and a quarter of a foot wide; on each side of the principal nerve are five parallel nerves, crossed at right angles by a multitude of smaller nerves. This plant grows in the Bay of Diego Soorey, in the water, and its roots are nourishing and agreeable to the palate.—*Athenæum*.

BATH ROYAL HORTICULTURAL SOCIETY.—The second evening meeting of this Society for the purposes of Horticultural and Floral discussion, took place on Tuesday, February 2nd., at Collings Library, and was well attended—S. Barrow Esq., in the chair. H. St. John Maule, Esq., read a paper by Mr. Salter, who was absent from illness, on the best means of growing the Camellia; papers on the Melon and Potatoe were also read by other members. Beautiful specimens of Orange trees in fruit, and Persian Cyclamens, Hyacinths, and Camellia, were sent to this meeting by Mr. J. Salter, Kensington Nursery, and were much admired.

The exhibitions of the Bath Royal Horticultural and Floral Society for 1836, are fixed for the 23rd of June, the 21st. of July, and the 15th of September.

The following article on Striking Cuttings without the aid of glass, was read at a meeting of the Horticultural Society of London, on the 19th of August 1834, transmitted to them by Mr. W. Phelps, of Corsham, Wilts:—"Necessity is said to be the mother of invention, which I think will be exemplified by the following statement. Last

summer I had a great desire to strike cuttings of pink, carnation, Mule Pink, *Viola tricolor*, *Oenothera* Mediterranean Heath, Gum Cistus, *Alaternus*, *Pyracantha*, and other flowers and shrubs, but having no glass, and it not being convenient to purchase one, I prepared a bed 15 feet long and three feet wide, with soil which I considered best for each peculiar sort, I prepared the cuttings in the usual way, just the same as I should for hand-glasses, and covered them with *wooden shutters* which I had by me 3 feet square and three quarters of an inch thick, placed on a *brick* at each corner, which raised the *shutters* between 2 and 3 inches above the *cuttings*, I watered the cuttings as soon as they were planted, kept them constantly shaded by the shutters when the sun shone, kept them off on rainy days, and always at night, watered them every evening in dry weather, the consequence was that I never before had such good luck with hand-glasses or any other method. I am pursuing the same plan now, and any person is welcome to see how successful I continue to be in the adoption of this plan. It is probable that it may not be new to some persons, but to those circumstanced as I am, it may be acceptable, as, I believe this simple manner of striking cuttings of shrubs and flowers is not generally known. W. P.

At the Medico-Botanical Society on Tuesday, Dr. Morries, made some observations on opium, *digitales*, conium, and hyoscyamus, and exhibited specimens of oils obtained from the latter plants. The empyreumatic oil of hyoscyamus is of a light yellow, highly volatile, and possesses a most powerful penetrating virose odour, which is readily perceptible at some distance, even when the bottle is closed. It is nearly as rapidly fatal as prussic acid, eight or nine drops will destroy life in one hour and a half.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *CAMELLIA JAPONICA*, var. *DONCKELAEI*, Donckelaer's.—This new and singular flowery variety has bloomed in the collection of Mr. Lowe, nurseryman, Clapton, near London. The flower is semidouble, the petals expanding prettily. The colour is a fine deep rosy-red, blotched, in a very striking manner, with white. It is a very desirable variety. Class, *Monadelphica*; Order, *Monogynia*. Natural Order, *Ternstroemiaceæ*. *Camellia* in compliment to G. J. Camel, a Jesuit.

2. *CRATÆGUS ORIENTALIS*, Oriental Hawthorn. Synonym, *Mespilus orientalis*. This species is from Crimea, and is now growing in the grounds of the London Horticultural Society. The tree grows in a very compact manner. The flowers are white, very sweet, and appear in spring. The fruit produces a very pretty appearance, being of a large size, and of a fine deep purplish-red colour. It is a desirable tree for the pleasure ground. Icosandria, Pentagynia. Rosaceæ, Pomaceæ. *Cratægus*, from *Kratos*, strength.

3. *CRATÆGUS MAROCCANA*, Morocca Hawthorn. Another pleasing species growing in the garden of the London Horticultural Society. It is a native of Barbary and Palestine. The flowers are white, succeeded by largish berries of a fine light scarlet colour.

4. *DENDROBIUM MONILIFORME*, Necklace formed, (Mag. of Botany.) Synonym *Epidendrum moniliforme*. A very splendid flowering orchideous plant. It is a native of Japan, and China. It is now grown in many collections in this country. The flowering stem rises to near two feet high, and produces the flowers in pairs, generally at the top of the stem. They are of a fine rose colour, inclining to white towards the centre, which is greenish. The Labellum is white, largely tipped with deep crimson. It is a very showy species, and deserves a place in every collection of this tribe of plants.

Gynandria Monandria, orchidæ. *Dendrobium*, from *Dendron* a tree; and *bis*, to live, referring to the Genus growing upon trees in the native habits, where they entwine about the branches of trees, and bloom in profusion.

5. *GOODETIA RUBICUNDA*, Ruddy flowered (Bot. Reg. 1856.) A very pretty flowering hardy annual, grown last season in the garden of the London Horticultural Society. The plant grows near two feet high, and produces abundance of flowers, very much resembling the *Oenothera rosealba*, in form and size, of a rosy-lilac colour with an orange-coloured eye at the centre, the base of each petal ending with that colour. The plant was introduced from California by Mr. Douglas. It blooms from July to September. Octandria Monogynia, Onagraceæ.

6. *JABOROSA INTEGRIFOLIA*. Entire leaved. (Bot. Mag.) Seeds of this plant were sent to the Glasgow Botanic Garden, from Buenos Ayres, by Mr. Tweedie. It has bloomed in the open border, in the Glasgow garden, in July and August 1835. It is a creeping plant, having large dark green leaves, and a single flower is produced at the axil of each pair. The flower very much resembles that of the square stalked Tobacco, only they are of a pure white inside, and of cream colour outside. The tubular part of the flower is about three

inches long, and the narrow petalled limb, of five narrow divisions, is about the same across. Pentandria Monogynia, Solanææ. *Jaborosa*, the Arabic name for the Mandragora, to which plant it is closely allied.

7. *LATHYRUS ROTUNDIFOLIUS*, var., *ELLIPTICUS*. Round leaved everlasting Pea.—A hardy perennial species, growing in the Birmingham Botanic Garden; the plant is not so robust in its growth as *Lathyrus latifolius*. It is a climbing kind, rising to the height of about four feet. The flowers are produced in profusion, each a little more than half an inch across, of a fine crimson colour. This variety, it is conjectured, is a native of Georgia. It is a very showy flowering plant. Diadelphia Decandria. Leguminosæ. *Lathyrus*, from *la*, augment; and *thouros*, any thing exciting, referring to the qualities of the Genus.

8. *LEPTOSIPHON ANDROSACEUS*. Androsace-like.—(Bot. Mag.) A free and pretty flowering annual plant. The stem rises about 9 inches high, and each is crowned by a corymbose head of whitish, or lilac coloured flowers, each flower about half an inch across, and about twelve in a corymb. The plant appears to like an airy and coolish situation. If seeds be sown early, and again late in Spring, such a succession will produce flowers for the most part of Summer. Pentandria Monogynia. Polemoniaceæ. *Leptosiphon* from *Leptos*, slender; and *siphon*, a tube, in allusion to the slender tube of the corolla.

9. *LUPINUS TEXENSIS*, Texas Lupine. (Bot. Mag.) This species very much resembles *L. subcarnosus*, but it is of a more robust growth; the flowers too are of a much deeper blue colour. The present species is annual, smooth foliage, not fleshy. The five blue blossoms with a yellow centre make a pretty appearance. Diadelphia Decandria. Leguminosæ. *Lupinus* from *Lupus*, a wolf, referring to the effect of the plant in destroying the fertility of the soil.

10. *NERIUM THYRSIFLORUM*, Dense flowered Oleander. (Mag. of Botany.) A very showy flowering plant, introduced from Nepal Sylhet in 1830. It has bloomed in the collection of Mr. Tate, Nurseryman, Sloane-street, Chelsea. The flowers single, produced in a spreading terminal cyme, which contains upwards of a dozen flowers; they are of a bright rosy pink colour, a little streaked with a lighter colour at the centre of each flower. It deserves a place in every greenhouse; if planted in a good rich soil, and forced a little in a hothouse to bring it into bloom, it will amply repay for the attention. The genus being vigorous growing plants, require a good share of pot room, and to be repotted each time a plant has done blooming. Pentandria Monogynia. Apocynææ. *Nerium* from *neros*, humid, referring to the habit of the plant in its native country, where it is found growing on the banks of rivulets, &c.

11. *ONCIDIUM ALTISSIMUM*, Tallest *Oncidium*. (Bot. Reg.) This plant has bloomed in the collection of Messrs. Loddiges's. The flowers are produced upon a long *decumbent* raceme, nearly simple, they are of a bright yellow colour, numerous spotted with brown. The Nectarium is of a greenish yellow. Gynandria, Monandria. Orchidaceæ. *Oncidium* from *Ogkidion*, a tubercle; referring to the two prominences on the lip of the flower

12. *ONCIDIUM CORNIGERUM*, Horned *Oncidium*. (Bot. Mag.) This very handsome flowering species has bloomed in 1835, under the able management of our friend Mr. Cooper. The flowers are produced very numerous upon a pendant scape of near a half a yard long, having a panicle of compound racemes of flowers. The flowers are of a fine yellow, spotted with red. Each flower is rather more than half an inch across. The plant was originally imported from Brazil, by the Hon. and Rev. William Herbert, of Spofforth, near Wetherby. Gynandria Monandria, Orchidaceæ.

13. *ORITHYIA UNIFLORA*, Single flowered, (Brit. Flow. Garden, 336.) Synonym's *Gagea uniflora*, *Ornithogalum uniflorum*, *Tulipa altaica*. A native of the country around the Altaic Mountains. The flower has much the appearance of a yellow crocus. The stem rises about three inches high. The flowers appear from April to June. It is cultivated in the Chelsea Botanic Garden. Hexandria Monogynia, Liliaceæ, *Orithyia* so named after *Orithyia* the fabled wife of Boreas.

14. *ROSA MICROPHYLLA*, Small-leaved Chinese Rose. (Bot. Mag. 3490.) This very pretty flowering rose is quite hardy, if grown in a dry and sheltered situation. It has bloomed most abundantly, is grown in a raised basket, but we had it worked upon a stock of the wild rose. If trained against a good aspected wall, it would bloom profusely. The flowers are very double, of a fine rose colour in the interior of the flower, but the outer row of petals is nearly white. The plant is readily propagated by cuttings, or buds. It may be procured at a cheap rate at most of the public nurseries.

15. *SENECIO AMPULLACEUS*, Flask-flowered American Groundsel. (Bot. Mag. 3487.) An annual plant, having a flower stem rising about two feet high. The flowers are produced upon a cylindrical involucre, they are of a fine deep yellow, each about an inch across. They make a showy appearance. The plant was found by Mr. Drummond in the Texas. Syngenesio, Superflua, Compositæ. *Senecio* from *senex*, old man; the naked receptacle having the appearance of a bald head.

PART III.

ORIGINAL COMMUNICATIONS.

QUERIES.

ON CALYCANTHUS PRÆCOX.—I am just in the same situation as "C. S." with regard to a double Pomegranate; there is this difference, mine has been four years in the ground, and has not yet had a single blossom; I also followed the directions given in a former number. My plant looks healthy and is quite a shrub, but without a symptom of blossom. I shall, therefore, be glad to hear the answer to C. S.'s query on that point, also on the subject of the *Calycanthus præcox*, as I was lead to believe, when I purchased mine in the Autumn, that it would blow the following Christmas. I attributed its failure to the severity of the frost after removal.

ON MOSS.—I shall feel obliged if any one will instruct me how to get rid of Moss in a long gravel walk. I have had the gravel picked up repeatedly, but as soon as it is rolled and becomes hard, the moss appears again.—I once tried salt, but that nourished the soil so much, that though the moss was killed, such a quantity of weeds sprang up, that the remedy was worse than the original disease, for the gravel was obliged to be turned up to be frosted.

Clifton, 1836.

MARIA.

ON GERANIUM SEEDS, &c.—I perceive that a question similar to the one I am about to propose, has been put by a correspondent, page 165, Vol. 2nd. I wish to know, whether the Seed of Geraniums should be sown immediately on taking it from the plant, or whether it should be kept during winter, and then sown early in spring. I raised some Plants the latter end of last summer, but they fagged off in the winter. I shall feel particularly obliged on my question, together with that of the Correspondent alluded to, being answered as early as possible.

P. S. Surely your Correspondent, page 49, of the March Number of this year, rather exaggerates the duration of time which he states his fuel lasts.

Canterbury, 1836.

AN AMATEUR DES FLOWERS.

ON GRAFTING OR BUDDING RHODODENDRONS.—You would oblige me by requesting one of your correspondents in the *Floricultural Cabinet*, to inform me, if he has successfully grafted or budded Rhododendrons, and if so at what season, and in what manner they succeed best.—Your Obedient,

A CUPAR FLORIST.

ON CAPE BULBS, &c.—A Subscriber would be greatly obliged by a little further information relative to the culture of bulbous roots in general. When planted in the open border, what depth ought they to be in the soil? Do the different bulbs vary much in that respect?—Again, as regards those which require heat, I have frequently observed the crown of the bulb raised above the surface of the soil, is that desirable? Should all the outer skins be removed which have the appearance of being decayed? Would you also have the goodness to name what proportion of loam there ought to be in a peat border intended for American Plants? what depth the compost ought to go? and if any sand or manure must be added.

A. B.

ON ORCHIDEOUS PLANTS.—I have been much pleased with the papers on the Cultivation of Orchideous epiphytes, by a "Country Florist," and regret then have not been continued in each successive number as promised, and the more so, because their place seems not so profitably occupied by the Gleanings from Old Authors. I trust your Correspondent will resume his labours in May,

and I would suggest, that instead of stating that these plants may be had for a "reasonable price," he would give the actual prices charged by nurserymen as far as practicable. No one will then be disappointed as I was the other day, when asking for a species of *Stanhopea*, I was told the price of a small plant was £5. 5s. If this be a reasonable price for a Country Florist, I fancy he has a longer purse than many of his brother florists.

EPIPHYTE.

We have received another communication from a Country Florist, which will appear in the July number.—CONDUCTOR.

ANSWERS.

ON A YELLOW FLOWERING PLANT.—In March Number, "R." in reply to "Amicus" advises Moneywort, as a dwarf trailing plant—in addition, I beg to recommend white, pink, red, and yellow *Helianthemum*—the leaf is pretty, and they blossom abundantly from May till November—they look particularly well in rock work or in roots of trees; if put in the borders, a little pile of stones should be placed to plant them in, which they will soon conceal: a small root in a farthing pot, may be had of any nurseryman for 6d. or 9d. each root—they are very hardy and increase rapidly.

MARIA.

ON A BOX FOR CARRYING DAHLIA BLOOMS.—In answer to your constant reader, at Ackworth, a Box made of whatever size he might require, would carry the Dahlia flowers safe by having a false bottom with holes just of sufficient size for the stem, the bottom part filled with damp moss and a pin run through the stem close under the wood, the flowers then could not move, but the false bottom must be tacked inside carefully; I should say with long tacks, so as to be able to loose it easily at its destination. I think on this plan they would carry 200 miles, and merely require the usual direction, "with care, keep this side up." TULIP.

THE HISTORY OF THE DAHLIA, &c.—In answer to the enquiry in the *Flori. cultural Cabinet* of February last, respecting the earliest introduction of the Dahlia, "A. Z." is informed that our gardens are indebted to Mr. John Frazer, son of the late indefatigable collector of North American plants, for bringing to England in 1802, the *Dahlia coccinea*, the first known species, which plant flowered in a hothouse in June 1803, at the Nursery, Chelsea, figured and described in Number 210 of Curtis's Botanical Magazine. As a tribute of grateful respect to the introducer, it is proposed that the Horticultural Societies, and the eminent growers and cultivators of this splendid genus, (which is now producing such endless beautiful hybrid varieties) shall raise a subscription prize for the best new Dahlia of the season 1836, to be called "the Frazer Dahlia."

London, April 27th, 1836.

A SUBSCRIBER.

(We shall be glad to assist in the furtherance of this object.)—CONDUCTOR.

REMARKS.

ON EAST AND WEST INDIAN SEEDS, &c.—Cushing, in his *Exotic Gardener*, in which the management of the Hothouse, Greenhouse, and Conservatory is fully delineated according to present practice. Loudon, 1814, in the Hothouse department says, "much depends on the state of the seeds when received. East and West Indian Seeds generally arrive with the regular fleet, as indeed do those from the Cape of Good Hope; and all the South Sea Islands for the most parts by the Eastern and China ships, so that one may in general be prepared against their arrival. As early in the spring as possible is undoubtedly the best time for sowing, yet a few weeks' delay, in some instances, may be advisable. If received late in October or November, I should certainly wait until January or perhaps February, unless it evidently appeared they would not keep long out of the earth, so long a time in a vegetative state."

"The different sorts of mould necessary to be used in this business, such as loam, peat, well-rotted dung, vegetable mould, sand, &c. all of which intended for this purpose should be finely sifted, and kept separate till wanted for use."

His different composts are for

Light Loam,.....	Half Loam, Half Peat.
Do. Rich do.	Half do. Half Vegetable Mould.
	or $\frac{1}{2}$ do. $\frac{1}{2}$ peat, and $\frac{1}{2}$ old hotbed dung.
Sandy Peat	Peat and fine sand.
Rich Sandy Loam	$\frac{1}{2}$ Dung to Sandy Loam.
Strong Rich do.	$\frac{1}{2}$ do. to a strong clayey Loam.
Very Light do.	$\frac{1}{2}$ Peat, and $\frac{1}{2}$ Loam.

TULIP.

NEW PLANTS.—Mr. Young exhibited, at the London Horticultural Society Meeting, a new plant similar in flower to a Fox-Glove, introduced from China. From the Garden of the Society, *Douglas nivalis*, an alpine plant from Canada. *Aristolochia trilobata*, remarkable for the long tails of the flower. *Nemophila insignis*, pots of it in bloom, it is of a most beautiful blue. *Berberis aquifolium*, the only hardy evergreen plant sent by the late Mr. Douglas.

METROPOLITAN SOCIETY OF FLORISTS AND AMATEURS.

At a Meeting of the Committee of the above Society, held April 14th., it was unanimously Resolved,

"That a die be prepared for a Silver Medal, to be presented to Provincial Societies, for the purpose of being awarded to the cottager, who shall take most prizes in the year for flowers; and that the following Societies be apprized that they will receive one each as soon as completed, for such purpose, viz., Bristol, Bath, Cheltenham, Cambridgeshire, Wallingford, Sheffield, Yorkshire East Riding, Swansea, with such others as may be determined on hereafter by the Committee. I understand that any other Provincial Society applying to the above committee for a Medal, for the purpose specified, will meet with immediate attention.

London, April 29th.

J. C. C.

LIST OF FLORICULTURAL AND HORTICULTURAL MEETINGS,
TO BE HELD IN JUNE.

BATH ROYAL HORTICULTURAL SOCIETY.—Pinks, Ranunculuses, and other Flowers, Fruits, &c. on *Thursday 23rd*.

BEVERLEY AND EAST-RIDING OF YORKSHIRE, *Wednesday, June 8th*.

BROMLEY, KENT, *June 18th*.

CAMBRIDGESHIRE HORTICULTURAL SOCIETY, to be held at Cambridge, on *Wednesday 8th, 15th, and 22nd*.

CHELTEHAM HORTICULTURAL SOCIETY, for Ranunculuses, Pinks, Fruits, &c. on *Tuesday 14th*.

DORKING (SURREY) HORTICULTURAL SOCIETY, for Geraniums, Ranunculuses, Pinks, Calceolarias, Roses, and Fruits, on *Saturday 25th*.

EAST LONDON HORTICULTURAL SOCIETY, for Ranunculuses, &c. held at the Salmon and Ball Inn, Bethnal Green, on *Monday 13th*.

HERTFORDSHIRE HORTICULTURAL SOCIETY, to be held at Hertford, on *Wednesday 29th*.

LONDON HORTICULTURAL MEETINGS, at the Offices in Regent-Street, on *Tuesday, June 7th and 21st*; and a grand Exhibition at the Gardens, on *Saturday the 11th*.

METROPOLITAN SOCIETY, for Roses, Ranunculuses, Pinks, and other Flowers, to be held at Vauxhall, on *Thursday 23rd*.

READING HORTICULTURAL SOCIETY, on *Tuesday 21st*.

SHEFFIELD HORTICULTURAL SOCIETY.—Ranunculuses, Pinks, and other Flowers, Fruits, &c. on *Wednesday 22nd*.

STAMFORD HILL (near London) HORTICULTURAL SOCIETY, for Geraniums, Roses, Ranunculuses, Pinks, Pansies, and other Flowers and Fruits, on *Wednesday 8th, 15th, or 22nd*.

SUNBURY PINK SHOW, held at the Flower-Pot Inn, on *Wednesday 29th*.

TAMWORTH (Staffordshire) HORTICULTURAL SOCIETY.—Roses, Pinks, Ranunculuses, &c. *Wednesday 29th*.

WOOLWICH HORTICULTURAL SOCIETY.—Pinks, &c. held at the Barrack Tavern, on *Friday 17th*.

A SHOW OF DAHLIAS, OPEN FOR ALL ENGLAND,

is to be held at Horsham in Sussex, on *Tuesday, August 23rd*. Prizes of considerable value will be awarded to successful competitors.

LONDON HORTICULTURAL SOCIETY.

April 5th. The Camellia Show was held in the Rooms, Regent Street.

EXHIBITED FOR PRIZES.

By Mr. Chandler.—Camellia japonica var. striped flowered. C, j, var imbricata. C, j, var. Fimbriata.

By Mr. Glenny.—C, j, var double striped. C, j, var fimbriata. C, j, var althæaeflora.

By Mr. Chandler.—English Seedling Camellias in pots.

Baskets of cut Specimens of Camellias from Mr. Chandler, Mr. W. Wells, and Mr. Donald. Specimens grown in the open air.

English Seedling Camellias. Specimens from Mr. Chandler, Mr. Allnutt, and Mr. Glenny.

EXTRAS NOT FOR PRIZES:

By Mr. Chandler.—Camellias Double White, Chandleri, concinna, althæaeflora. Mr. Allnutt, seven seedling Camellias. J. C. Palmer, Esq. Basket of Camellia Specimens. W. Wells, Esq. Basket of Camellia Specimens. Mr. Glenny,—Euphorbia splendens, Panzies, and a seedling Rhododendron. Mr. Pressly,—Euphorbia splendens, Tropæolum tricolorum. Messrs. Young, of Epsom,—A hybrid Rhododendron, Phaius Woodfordi immaculata, Acacia verticillata, Ardisia hymenandra. Mr. Lane, gardener to J. C. Palmer, Esq.,—Tropæolum tricolorum. Mrs. Marryatt,—Solandra grandiflora. Mr. Buck, Drimia species; Plumbago rosea.

Mr. Chandler received a large silver Medal for the best three Chinese Camellias in pots; and a large silver Medal for the best three English seedling Camellias in pots. Also, a Silver Banksian Medal for the best basket of English Seedling Camellia Flowers.

Mr. Wells, a Silver Banksian Medal for the best basket of cut specimens of Camellias.

Banksian Medals were awarded to Messrs. Young, of Epsom, for a plant of Ardisia hymenandra. To Mr. Lane, for a plant of Tropæolum tricolorum.

MEETING ON APRIL 19th.

Exhibited from Lady Farnham, a splendid Specimen of Rhododendron arboreum. Mr. Duncan, a new pale flowered variety of Rhododendron Nobleanum. Mr. Allnutt, an Apple-blossomed Camellia. Sir A. Hume, Bart. a fine specimen of Magnolia conspicua, which had been gathered from a tree growing against a house. Mrs. Marryatt, nine species of Acacia, and Magnolia conspicua; and Acacia pubescens, do. longissima, from plants grown in the open air.

BATH ROYAL HORTICULTURAL AND FLORAL SOCIETY.

The present season commenced on April 21st., with as splendid an exhibition as the most sanguine could have expected at so early a period. Nothing that science, taste, or wealth could produce was wanting, the variety appeared endless, the whole superlative attractive. The company appeared to comprise all the fashion and elegance of the city, augmented by a considerable influx of the neighbouring gentry. The chief display in the great tent was indebted for many of its choicest attractions to Mr. Salter, of Kensington Nursery, and to Messrs. Lucombe, Pince, and Co., nurserymen of Exeter. The former, it will be seen below, sent no less a number than 450 plants and flowers, and his contributions in this form are the more acceptable and valuable, because he does not compete for the prizes, but supports the Society upon disinterested public ground. Among the contributions of the latter, (brought, it will be observed, from so great a distance as Exeter,) were some beautiful new Seedling Chinese Azaleas, of perfectly novel colours—from rich purple to the delicate tint of the rose, geranium-colour, pink, &c. These are really great acquisitions to our greenhouse collections.

They exhibited also some very fine specimens of crimson Hybrid Rhododendrons; but their show of Camellia Flowers, was perhaps, the most magnificent rarity in the exhibition.—They consisted of 20 distinct named sorts of choice Camellias, viz.: the Reticulata, the Imbricata, the Parmenterii, the Palmerii, (dazzling white,) the Florida, the Altheaflora, the Chandlerii, the Coralina Variegata, the Rosea Sinensis, the Sesanqua Rosea, the new Ghent Seedling, the Alba Simplex, the Rosa Mundi, the Grey's Invincible, the Welbankiana, the Speciosa, the Pæoniiflora, and the Pompona. This stand also displayed some very noble-looking plants, such as the Amaryllis reticulata, the Erica Monsoniana, the Gingora atropurpurea, the Oncidium luridum, (with 150 flowers), &c. A great variety of elegant baskets of plants and cut flowers were ranged down the south side of the tent, and on a table on the north side a collection of cut Pansies of every conceivable hue.

HULL FLORAL AND HORTICULTURAL SOCIETY.

The first exhibition for the present season, of the above society, was held on May 2nd, at the Public Rooms. Notwithstanding the ungenial state of the weather for some weeks past, the show of flowers was very splendid, and formed a most auspicious commencement of the society's operations. Indeed, it was considered by many, as superior to most of the exhibitions for several years past. The flowers exhibited, were Auriculas and Hyacinths, of both of which there were some remarkably fine specimens on view; as also of greenhouse plants, fruits, &c. The judges for the Auriculas were Messrs. Ely, (of Leeds) Wharton, Bell, Lumb, and Kells; for the fruit, cucumbers, &c, Messrs. Morehouse, Kells, Lumb, and Priest, (of Beverley.) The following is a list of the flowers, &c. considered as entitled to the premiums:—

Premium by R. Betheli, Esq. M. P.—Mr. Dobson's Leigh's Colonel Taylor.

Premium by P. B. Thompson, Esq. M. P.—Mr. R. Deighton's Hey's Apollo.

Premium by Major Sykes—Dr. Horner's Kenyon's Ringleader.

Green edged—1. Mr. Dobson, Leigh's Colonel Taylor. 2. Dr. Horner, Pollett's Standard of England. 3. Mr. Deighton, Pollett's Highland Boy. 4. Mr. Dobson, Booth's Freedom. 5. Dr. Horner, Stretch and Barlow's King. 6. Mr. Beecroft, unknown. *Grey Edged*—1. Dr. Horner, Kenyon's Ringleader. 2. Mr. Deighton, Grimes's Privateer. 3. Ditto, Kenyon's Ringleader. 4. Dr. Horner, Ryder's Waterloo. 5. Mr. Deighton, Grime's Privateer. 6. Mr. Oglesby, Warris's Union. *White Edged*—1. Dr. Horner, Hugh's Pillar of Beauty. 2. Mr. Deighton's, Taylor's Glory. 3. Mr. Dobson, Taylor's Incomparable. 4. Dr. Horner, Leigh's Bright Venus. 5. Ditto, Ashforth's Rule-all. 6. Mr. Beecroft, Taylor's Glory. *Sells*.—1. Mr. Deighton, Hey's Apollo. 2. Dr. Horner, Berry's Lord Lee. 3. Mr. Dobson, Hey's Apollo. 4. Dr. Horner, Flora's Flag. 5. Mr. George Hodgson, ditto. 6. Dr. Horner, Whittaker's True Blue.

ALPINES.—1. Mr. Oglesby, Emmerson's Favourite. 2. Mr. G Hobson, unknown. 3. Dr. Horner, ditto. 4. Mr. Dobson, King of the Alps. 5. Dr. Horner, Rising Sun. 6. Mr. Beecroft, Emmerson's Favourite.

POLYANTHUS.—Premium by the society.—Dr. Horner, Pearson's Alexander. *Scarlet*.—1. Dr. Horner, Stead's Telegraph. 2. Mr. Smithson, Crownshaw's Invincible. 3. Mr. Dobson, Cox's Regent. 4. Ditto, ditto. 5. Ditto, unknown. 6. Ditto, Cox's Regent. *Dark*.—1. Dr. Horner, Pearson's Alexander. 2. Mr. Deighton, ditto. 3. Dr. Horner, Hufston's Lord Raneliff. 4. Mr. Dobson, Pearson's Alexander. 5. Ditto, Cox's Regent. 6. Ditto, Pearson's Alexander.

HYACINTHS.—Premium by J. C. Parker, Esq. Mayor.—Mr. Burman's Temple Van Apollo. Premium by W. Hutt, Esq. M. P.—Mr. Burman's Groot Voorst. *White and Yellow Double*.—1. Mr. G. Parker, La Cherie. 2. Mr. Burman, unknown. 3. Mr. Bell, Anna Maria. 4. Mr. Atkin, unknown. *Red and Pink, Double*.—1. Mr. Burman, Groot Voorst. 2. Mr. Bell, Ditto. 3. Mr. Dobson, Compté de la Ceste. 4. Ditto, Groot Voorst. 5. Mr. Burman, ditto. 6. Ditto, Waterloo. *Blue and Purple, Double*.—1. Mr. Bell, Bouquet Pourpre. 2. Mr. Burman, Lord Wellington. 3. Mr. Dobson, L'Illustre. 4. Ditto, ditto. 5. Mr. G. Parker, unknown. 6. Mr. Burman, Azure. *White and Yellow, Single*.—1. Mr. Dobson, Voltaire. 2. Mr. Bell, Bouquet Triumphant. 3. Ditto, Voltaire. 4. Ditto, Grand Vainqueur. 5. Mr. Dobson, ditto. 6. Mr. Burman, ditto. *Red and*

Pink, Single—1 Mr. Burman, Temple Van Apollo. 2 Ditto, Diana. 3 Mr. Bell, Rounge Brillante. 4 Mr. Dobson, Erstelde de Vredo. 5 Mr. Burman, Princess Elizabeth. 6 Mr. Dobson, Temple Van Apollo. *Blue and Purple, Single*—1 Mr. Dobson, Bounaparte. 2 Mr. Burman, Azure. 3 Ditto, Emicus. 4 Ditto, Grand Vidette. 5 Ditto, L'Ami Decour. 6 Mr. Bell, Lord Wellington.

NARCISSUS (POLYANTHUS)—1 Mr. G. Parker, Grand Monarque. 2 Ditto, unknown. 3 Mr. Atkin, ditto. 4, 5, 6. Mr. Smithson, ditto.

POLYANTHUS NARCISSUS, SOLITARY FLOWERED—1 Mr. Smithson, Sulphur Croon. 2 Ditto, ditto. 3 Ditto, Van Sion. 4 Mr. Bell, Sulphur Croon. 5 Mr. Oglesby, Van Sion. 6 Ditto.

STATEMENT OF THE PRIZES,

Awarded at the Auricula and Polyanthus Show of the Leeds Florist Society,

HELD APRIL 25th, 1836.

AURICULAS.

1st Class, Green Edges.	{	1. Leigh's Colonel Taylor,	Mr. Wm. Chadwick.
		2. Tomlinson's Commander,	Do.
		3. Barlow's King	Do.
		4. Taylor's Plough Boy	Do.
		5. Rider's Waterloo	Beeston.
		6. Buckley's Jolly Tar	Do.
2nd Class, Grey Edges.	{	1. Grime's Privateer,	Chadwick.
		2. Syke's Complete	Do.
		3. Hey's Lovely Ann	Do.
		4. Kenyon's Ringleader	Do.
		5. ———— Revenge	Beeston.
		6. ———— Walter Fawkes	Chadwick.
3rd Class, China Edges.	{	1. Lee's Bright Venus	Beeston.
		2. Pott's Regulator	Chadwick.
		3. Taylor's Glory	Beeston.
		4. Hughes' Pillar of Beauty	Chadwick.
		5. Ashworth's Rule-all	Do.
		6. ———— Beauty of Barlow ..	Do.
4th Class, Selfs.	{	1. Hey's Apollo	Do.
		2. Berry's Lord Lee	Do.
		3. ———— Ned Ludd	Do.
		4. Grime's Floras Flag	Do.
		5. ———— Seedling	Beeston.
		6. Berry's Lord Primate	Chadwick.
5th Class, Alpines.	{	1. Berry's Fair Rosamond	Do.
		2. Edmondson's Favourite	Do.
		3. Cookson's Mary (Seedling) ..	Rev. F. Cookson.
		4. ———— Alicia do.	Do.
		5. ———— King of the Alps ..	Mr. Chadwick.
		6. ———— Seedling	Beeston.

POLYANTHUSES.

1st Class, Dark.	{	1. Pearson's Alexander	Mr. Foster.
		2. ———— Black Prince	Do.
		3. ———— Cox's Regent	Do.
		4. Foster's Mrs. Emmett (Seedling) ..	Do.
		5. ———— Seedling	Kearsley.
		6. ———— Lord Jno. Russell	Do.
2nd Class, Red.	{	1. Foster's Cox's Regent,	Chadwick.
		2. Crownshaw's Invincible	Do.
		3. ———— Seedling	Kearsley.
		4. ———— Do.	Foster.
		5. ———— Unknown	Do.
		6. ———— Do.	Chadwick.

CAMBRIDGE FLORISTS' SOCIETY.

The Auricula show of this society took place on Friday, April 29th, in the large Assembly Room, Hoop Hotel. The flowers on the whole were not so fine as we have been accustomed to see on former occasions, owing to the late unfavourable state of the weather. Rev. J. S. Henslow, Professor of Botany, favoured the meeting with a brief lecture on the cultivation of florists' flowers, tracing their gradual alteration and improvement from "weeds" to their beautiful appearance and splendid colours as exhibited that day. How thankful all ought to be to the all-bountiful Giver of life, that so innocent and delightful an occupation was afforded them to exercise their industry and moments of relaxation from business. This address gave great pleasure to every person present, and was received with much applause. The prizes gained during the last season were then distributed; after which the chairman addressed the society's late Honorary Secretary, Mr. J. R. Stubbings, in an appropriate speech, and in the name of the society, presented him with a neat silver cup, in testimony of their respect and approbation of the manner in which he had discharged the duties of his office. The following inscription is engraved on the cup.

Presented to John R. Stubbings, April 29, 1836, by the Members of the Cambridge Florists' Society, in testimony of their approbation for his unwearied exertions as their Honorary Secretary.

Mr. Stubbings returned thanks for the mark of approbation presented by his brother members, and of which he should ever be proud: he kindly thanked the Rev. Chairman for the handsome manner in which he had conveyed the wishes of the society. The following is the award of the Judges:—

AURICULAS.

Premium Prize—Mr. R. Headly.... Oliver's Lovely Ann.

GREEN EDGED.

Rev. R. Lascelles .. Hunt's Conquering Hero.
 -- Ditto..... Ditto.
 Mr. Hyland .. Beerli's Superb
 — R. Headly .. Colonel Taylor.
 — Ditto..... Booth's Freedom
 — Ditto..... Ditto.

GREY EDGES.

Mr. R. Headly .. Oliver's Lovely Ann
 — E. Foster .. Kenyon's Ringleader.
 — Ditto..... Ryder's Waterloo.
 — R. Headly .. Ringleader.
 W. Bond, Esq .. Syke's Complete.
 Mr. Giddins Lancashire Hero.

WHITE EDGES.

Mr. Wood..... Taylor's Glory.
 — Giddins .. Popplewell's Conqueror.
 Rev. R. Lascelles, Leigh's Bright Venus
 Mr. Giddins .. Popplewell's Conqueror.
 — Wood.... Taylor's Favourite.
 Rev. R. Lascelles, Ditto.

SEKES.

Mr. Wood Redman's Metropolitan.
 — R. Headly .. Whittaker's True Blue.
 Rev. R. Lascelles .. Blue Admiral.
 Mr. Giddins True Blue.
 — Hyland.... Grimes's Flora's Flag.
 — Wood.... Redman's Metropolitan.

SEEDLING AURICULAS.

1 and 2 Mr. R. Haylock.

POLYANTHUSES.

Premium Prize—Mr. Hyland.... Wood's Gold Lace.

DARK GROUND.

Mr. Hyland.... Wood's Gold Lace.
 — Wood..... Ditto.
 — Ditto..... Ditto.
 — Ditto..... Collier's Princess Royal
 — Ditto..... Ditto.
 Rev. R. Lascelles .. Burnard's Formosa

RED GROUND.

Mr. Wood.... Wood's Ajax.
 — Ditto.... Buck's George IV.

SEEDLING POLYANTHUSES.

Mr. Wood.... Wood's Honourable Mrs. Howden.
 — Ditto.... Wood's Oliver Cromwell.

HYACINTHS.

DOUBLE RED.—Mr. Widnall..... Waterloo:

DOUBLE WHITE.

Mr. Ready..... Groot Voorst.
 — Ditto..... Eugene Beaumanois.
 — Ditto..... Bouquet Tendre.
 — Widnall.... Comte de la Coste.

DOUBLE BLUE.

Mr. Ready..... Platoff.
 — Ditto..... Roi de Pourpre.
 — Widnall.... Porcelaine Sceptre.

BEST PLANT IN BLOOM.—Mr. Widnall..... Cactusspeciosissima.

THE EXHIBITION OF THE HAMPSHIRE HORTICULTURAL SOCIETY,
 WAS HELD AT THE WHITE HART HOTEL, IN WINCHESTER,
 On Thursday, the 10th of March.

The show was most splendid in forced flowers, vegetables, and greenhouse plants—fruits were confined to pears and apples, the latter were numerous and exhibited good management in the gardeners method of preserving them. The Rev. F. Beaden, the President, exhibited a collection of stove plants, a fine specimen of *Bletia Tankervilleæ*, *Euphorbia elegans*, &c. ; a very fine box of forced Lilies of the valley, a large basket of finely flowered Neapolitan Violets, a tray of handsome Hyacinths, and a collection of other flowering plants were sent by Sir. T. Baring, Bart ; a good collection of Hyacinths by the Rev. Mr. Cheere ; a fine *Daphne odoratissima*, and other greenhouse plants, by Col. Wall ; a remarkably fine specimen of *Tropæolum tricolorum*, with other greenhouse plants, John Fleming, Esq. ; a collection of greenhouse plants, by the Rev. Mr. Rashleigh ; a beautiful specimen of a new *Stapelia*, by the Rev. T. Garnier ; a fine collection of greenhouse plants, by the Hon. Mrs. Craven ; an excellent specimen of *Mimulus Swithin*, by the Rev. F. Wickham. On the middle table were some good specimens of forced *Rhododendron Catawbiense*, *Azaleas*, *Lachenalias*, &c. There was a distribution of grafts and seeds amongst the members, which were sent by the London Horticultural Society, together with a liberal supply from Messrs. Reynolds, of Brentford, and Messrs. Page and Rogers, of Southampton, in the whole between 3000 and 4000 packets.

LITERARY NOTICES.

Just Published—FLORA METROPOLITANA, or BOTANICAL RAMBLES within thirty miles of London, made in 1833, 34, and 35, by DANIEL COOPER.

Preparing for Publication, the Magazine of Zoology and Botany, under the superintendence of Sir W. Jardine, Bart., P. J. Selby, Esq., and Dr. Johnston, of Berwick. To be published every second month. Price 3s. 6d.

REFERENCE TO PLATE.

NO. 1. *MIMULUS ELPHINSTONEA*.—This new and splendid variety was recently raised by Mr. Elphinstone, of Holmbush. The plant is a most profuse bloomer, and quite hardy ; it is one of the most ornamental plants for a flower garden ; the blossoms far exceed in size and splendour of colours, any that we have seen. *Mimulus*, from *mimo*, an ape, the seeds being like a face.

2. *TOURNEFORTIA HELIOTROPICOIDES*.—This very pretty flower very much resembles the *Heliotropium corymbosum*, but is of a deeper blue colour, and like that plant is admirably adapted for a showy bed—producing a pleasing effect when in such masses. The flowers are not fragrant, like the *Heliotrope* ; the plant is an herbaceous perennial, growing very freely, and blooming most profusely from May to October ; the flower stems rise to about two feet high ; it requires a slight protection in winter, either under a frame, or cool greenhouse ; it is a native of Buenos Ayres, introduced about five years ago, into this country. The plant may be obtained at many of the principal nurseries ; it deserves a place in every flower garden ; it delights in a rich soil. Pentandria, Monogynia, Boragineæ. *Tournefortia*, in compliment to J. P. Tournefort, the celebrated French Botanist.

3. *EUTOCA MENZIESII*, Mr. Menzies's.—This new and beautiful flowering hardy annual, was sent from Columbia, in North West America, by the late Mr. Douglas, where it grows and blooms profusely, in a sandy soil. The plant grows erect, about a foot high. Plants raised from seeds sown in March, bloom from May to July, and if sown in May, bloom from July to the end of September ; it merits a place in every flower garden. Pentandria Monogynia. Hydrophyllææ. *Eutoca*, from *eutokos*, fruitful, referring to the abundance of seeds produced.



Ar. umbell.



Ar. umbell. latifolia



Ar. umbell. nana

should be shortened, leaving them from four to ten feet high; by this method the blooming season is prolonged, and finer clusters of blossoms are produced.

The *Perpetual*, or the *Four Seasons Roses*, require very rich soil, which may readily be made so by manure, and improved by plentiful supplies of manure water in August and September. The flower buds which grow in June and July, should be cut off ere they burst into bloom, and in winter, pruned as closely in as those designated *Garden Roses*. If a sheltered situation can be given, it is a great advantage, as the cold winds in September and October have a bad effect on the opening buds, at that season. In a soil naturally wet, the beds should be drained, as too much moisture at the roots in the time of flowering, is also injurious. This class is worthy of a little extra trouble, being so splendid when well grown.

The *Climbers*, for pyramids and arches, require an opposite treatment with the knife, for if pruned after the manner of other *Roses*, they can never produce many flowers. Two or more stems should be grown as long and strong as possible, by very rich soil; at least half a barrow of well rotted dung for one, at first planting, and half that quantity every succeeding year. When the stems get too numerous, (say from seven to ten,) cut out one or two of the weakest every winter, and shorten the largest lateral branches, to keep them in that form the owners taste may require.

The *Odorata*, or by some termed the *Tea-scented Roses*, will grow best on an elevated bed, well sheltered from the north and west. And if the ground has at all a tendency to retain wet, the sub-stratum should be made with broken stones, six inches thick, and the bed raised from fifteen to twenty inches above the level of the garden. They require but little pruning, besides cutting out the dead wood; and if taken up in autumn, potted, and put into a frame, or covered with a hand glass in the bed where they grow, will do much better than if exposed all winter. While the plants are weak, part of the flower buds should be cut off, as they frequently flower themselves to death.

STANDARD ROSES.—These require the eye of the gardener frequently upon them, to cut off the wild suckers and branches as they make their appearance. Great care should be taken in the winter pruning to make the heads as proportionate as possible, for

if a greater number of branches, or stronger wood, be permitted to remain on one side than the other, the tree becomes deformed. This is of importance, for by a neglect of one or two seasons, a good form is irrecoverably lost: likewise, the shorter the branches are cut, the better they bloom.

From the above remarks it will be readily seen, that to prune all kinds of Rose trees after one method, would be highly improper; and that if done, it would cause some of the best kinds to be worthless.

WILLIAM BARRATT.

ARTICLE II.—*On Forcing Roses.* By A DEVONIAN.

After the clear statement of the best method of forcing Roses, made by Messrs. WOOD and WILLS in the First Number of the second volume of the *Cabinet*, a request for further information may seem almost unnecessary; but I am anxious to have a few more hints on the same subject. In the first place, it is not in the power of all florists to treat the plants in the manner recommended by the former gentleman, as a hothed on the plan described by him cannot always be procured. The plan of the latter is likewise open to objection, as few amateurs have hothouses so numerous as to admit of their moving their plants from one degree of heat to a greater—and, without removing them, the increased temperature required for the Roses might prove highly injurious to other plants in the same house. What I am, therefore, desirous of knowing is, whether it is possible to have fine forced Roses late in December, and during the months of January, February, and March, with the accommodation of one hothouse, which is appropriated to the culture of the usual stove plants. A minute account of the treatment to be pursued is earnestly requested, which I doubt not some experienced Rose cultivator will accede to. I once attempted to force some Roses in the bark-bed of a warm greenhouse, but I failed completely, the plants only producing a few sickly blossoms of the smallest size. The Roses were plunged in the bark in the month of January, but the flowers were not produced much before the usual blooming season in June. In addition to the information already asked, I am anxious to know if the plants will bear being removed to a conservatory, after

ON RAISING NEW VARIETIES OF THE MIMULUS.

are produced, or whether their blooming will be checked by their being submitted to the lower temperature requisite for flowering Camellias, &c. &c. I wish also to know whether Moss, Provence, and other summer Roses can be induced to bloom as freely as Noisette, Perpetual, China, Tea-scented, and Isle de Bourbon Roses. Perhaps the kindness of the correspondent who replies to these queries, will be further displayed in giving me a few names of the best Roses for forcing. Messrs. BROWN, in their new Catalogue, recommend the Dog Rose, from its easily excitable habit, as the stock on which Roses, for forcing, should be worked: what height should the stock be, to display the flowers to advantage?

A few hints on forcing the Persian Lilac, or any other plants calculated to add to the beauty of a conservatory in early spring, would also be very acceptable.

My last queries respecting conservatory shrubs and climbers, have not been answered: a reply is much wished for, and an early answer to the present is solicited.

Jan. 29th, 1836.

A DEVONIAN.

ARTICLE III.—On Raising New Varieties of the Mimulus. By CALCEOLARIA.

Though I cannot answer "T. P." and "A Lawyer's Clerk" as satisfactorily as I could wish, yet I can put them in a way of obtaining several varieties of Mimuluses without much expense. Let them get seeds of the different sorts advertised in your last number by CHARLWOOD and WARNER, and sow each variety as soon now as possible in a seed-pan (which should be about a foot in diameter, and four inches deep, with four or five holes in the bottom). Place the pans in a greenhouse, hotbed, or even warm window in the dwelling-house, and the young plants will soon make their appearance; give them plenty of air by day, when the weather is tolerable, and early in June prick them out in patches in the flower-garden, where they will flower all the autumn. I adopted this plan last year with two varieties I obtained from CHARLWOOD—*variegata* and *rosea*; and though the former were all execrable, the latter amply repaid me, for one small packet of

seed produced several very pretty and distinct varieties, some with white grounds; others with yellow, and all marked with spots of purple or brown of different shades and form. From these I selected a collection for the greenhouse, thinking the winter would destroy them in the open air; but I am happy to say that those I left in the garden are now looking very well, not the least injured by the frost. I also inoculated a few of the finest flowers, which produced seed abundantly; this I sowed in October, and have now some fine young plants in pans, which, with my seedling *Calceolarias* sowed at the same time, I expect will afford me some noble gratification this summer.

Mimulus should be frequently watered in summer, and if in pots, they should have a pan of water always under them: indeed, a neighbour of mine tells me they may be planted in a small stream of water, where they will grow like *Water Cresses*, and produce a very beautiful effect.

CALCEOLARIA.

Feb. 11th, 1836.

ARTICLE IV.—*On Destroying Earwigs, &c.* By HENRIETTA.

In your October number, "A Subscriber" reiterates the query of several correspondents—"What is the best mode of destroying the wireworm?" In reply, I beg to suggest the very simple and efficacious remedy first recommended by Sir JOSEPH BANKS, *viz.*: Let slices of potatoes notched narrowly in three or four places and stuck upon skewers, be buried just below the surface of the mould in your *Carnation* pots; they should be examined every morning, and the wireworms, which will collect upon them, be destroyed. *Ranunculus* beds may likewise be preserved from their ravages in a similar manner. Speaking of this destructive vermin, HOGG says, "Destroy this pest by every means in your power." They are generally to be found in new earth that has not been broken up for some time, and I would sooner employ a man for a fortnight to go over the whole by handfuls with a trowel, than run the risk of losing treble the amount of his wages in *Carnations*, to say nothing of the disappointment.

EARWIGS.—"Dianthus" sometime ago recommended the use of

78. TO CAUSE THE HYDRANGEA HORTENSIS TO FLOWER BLUE.

the tubes, as traps for these rapacious enemies of the Dahlia and Camellia, the inefficacy of which was complained of by "Crito," in October, 1833. As an excellent trap, the service whereof I have proved, I would recommend that pieces of Alder (of which withered sticks may easily be obtained at this time of the year), about half an inch in diameter, and with the pith pushed out, or the flowering stems of the *Lupinus polyphyllus*, should be cut into six-inch lengths, and concealed in different parts of the Dahlias. At the approach of day, the insects will retire into these traps, and if they be examined every morning, great numbers may be destroyed.

APHIDES, OR PLANT LICE.—There is an insect of the *Coccus* genus, which has various names in different parts of the country; such as God's-cows, Lady-birds, Lady-cows, &c., which are often ignorantly destroyed on account of its being supposed to be injurious to plants; whereas, whatever little peculations it may occasionally indulge in, are amply compensated for, by its rapacity in its larva state for the Aphis; so well known is this to naturalists, that it has received the cognomen of Lion of the Aphides. In the early part of last summer, I had several Hollyhocks in my garden, whereof the under surface of the leaves were covered with the Aphis; here they would have nested as it were, and afterwards slowly distributed themselves over the garden; one morning, however, I observed a number of dark grey wingless insects, about three-eighths of an inch long, running over the leaves with great rapidity; within a week from their appearance, not an Aphis was to be found on the plants.

HENRIETTA.

London, Feb. 5, 1836.

ARTICLE V.—To cause the *Hydrangea hortensis* to flower Blue. By Mr. MAUD, Gardener to the Rev. G. WRAY, Bramhope Hall.

The *Hydrangea hortensis* has a place in most collections throughout England. When grown to perfection, it forms a fine plant for the greenhouse during the summer months, amongst the tender annuals; it is also a showy shrub in a conservatory, and beautiful in the vestibule.

When the flowers of the *Hydrangea hortensis* begin to decay, and the wood sufficiently hard enough to endure the weather, I place the plants out in some convenient part of the garden, where I let them remain exposed till the last week in February, or first week in March, when I proceed to pot them for bloom. The compost I use is what I have grown my Cucumbers in the preceding year, which consists of half the quantity of good loam, a quarter of good spit dung from an old Cucumber or Melon bed, and a quarter of decayed leaves. This mixture I lay in the compost yard for use. The *Hydrangeas* I bloom in a sixteenth-sized pot: I divest the roots of the old mould. From those plants I intend to produce blue flowers, I cut off the long fibrous roots, reducing the ball to the size of a thirty-two sized pot. I take one ounce of oil of vitriol, and, with a quill or strong feather, I touch the roots of two plants all over. The remaining oil of vitriol I mix with a sufficient quantity of mould to pot two plants. When I have potted them, I place them in a shed or some sheltered situation for three or four weeks, until they have made new roots; then I place them in a forcing-house, and take especial care not to let them drop for want of water. The above method I have practised with success for upwards of twenty years. The flowers are equally as large as those that are pink.

Feb. 21st, 1836.

JONAS MAUD.

ARTICLE VI.—*On the Culture of the Tree Rose.* By ROSA.

(CONTINUED FROM PAGE 38.)

By the early part of April, the stocks will have pushed shoots. When they have grown about half an inch long, or even a little earlier, it will be necessary to look over the stems, in order to rub off all those shoots not required for budding upon. A weakly stock may have one or two left upon it, and a vigorous one three, four, or five. In making choice of shoots, care must be taken to reserve those that are properly disposed: as, for instance, if two shoots, let them be opposed to each other; if three, let them form a triangle; and for a greater number, let them be as near as possible at equal distances from each other, and so as to form the handsomest head. It must be attempted to get all the shoots as

cut the top of the stock as may be, so as to have them capable of forming a desirable head.

If, after this regulation of shoots, any others push, they must be rubbed off at the earliest stage; and should any suckers appear, they must be carefully taken away. To guard against injury from the above casualties, or by insects, the stocks must from time to time be looked over: sometimes slugs or caterpillars will creep up, and eat off the tender points of the shoots, or otherwise damage them, so as to cause the head to be deformed.

If the stocks had good roots, and were attended to in collecting, conveying, planting, securing, and regulating, by removing useless shoots, those retained will soon push forth vigorous shoots. It will be necessary then to look them over, in order to see if any particular shoot is growing far more robust than the others, and thus robbing them of support; such a shoot must have the end pinched off, in order to throw the sap into the others, that they may become of a similar size.

Nothing more will be required than observing the above-named regulations till July, excepting a very drouthy season occurs, in which case a supply of water occasionally to the roots would assist the plants to grow suitably.

My next observations will comprise the operation of budding, which shall be sent in due time for the May or June Cabinet.

March 4th, 1836.

ROSA.

ARTICLE VII.—*On Pruning the Garden Varieties of Roses.* By ROSA.

Having paid considerable attention to the culture of the Garden Rose, as already stated in my observations at the commencement of my Article on the Tree Rose, I send a few hints on pruning, the result of my own observation, and the method I now pursue.

The period of pruning should be deferred till towards spring, say the early part of March; but as it may be desirable to have some later than others, and thus prolong the season, I leave a selection for the attainment of that object, to be pruned at the end of March, or even in April; so that by allowing the end buds to push shoots an inch long, the buds at the lower part of a shoot

of the previous year's wood are not excited, when I cut away the upper portion which have pushed; the remainder do so afterwards, and cause the bloom to be three weeks later than would have been the case had they been pruned finally at the usual time of pruning. In pruning in the shoots of last year's wood, I cut away all the portion of each, so as to leave only two of the lowest buds. These buds are always indicated by a small ring round the shoot. Two such buds are quite enough to leave to every shoot retained of last year's wood, being quite sufficient to occupy the sap, and keep the tree in desirable bounds; besides the shoots will be much stronger, and the Roses in proportion larger. This mode of cutting in the shoots generally causes the production of suckers; and as a portion of the old wood must each year be taken away, either wholly or in part, such suckers of young wood make a suitable supply, and thus the bush is kept young; whereas by allowing the last year's shoots to be kept long, encouragement is given to cause the tree to push rapidly upwards, and become naked and unsightly below, which is ~~never~~ the case with mine.

In cutting away a portion of a shoot, I cut nearly to the uppermost bud I leave; so that not one-eighth of an inch of old wood is above it, and thus the wound heals up closely with the new shoot.

The slovenly practice of omitting to cut a Rose-tree more than once in several years, has come under my observation: the irregularity and naked bushes were quite unsightly, and when cut down low to obtain a new head, they refused to push forth shoots. A plant omitted for only a single season, loses its proper form for that year, and will not bloom near so well.

Rosa.

ARTICLE VIII.—On the Culture of the *Ranunculus*.

By R.

My mode of growing the *Ranunculus* has been invariably successful. It being also very simple, I forward it for insertion in the *Cabinet*.

I have a suitable situation in my garden fixed upon. The old soil is taken out to the depth of twelve inches; when that is cleared out, I lay four inches thick of well-rotted old horse dung and

rottened cow-dung, which had lain on a heap a year and a half. Upon this I cast about a foot deep of yellow maiden soil, from a pasture field. It was a good, rich, natural loam. I mixed the manure with it. I have planted both in November and in February, March, April, and May, with equal success. I have the bed prepared a month before I plant, to admit of settling. I renew the soil and dung every season. I plant the roots about an inch and a half deep,—that is, the crown so much covered. Previous to planting, I have the bed made even, and gently beat with a suitable flat spade. After planting, I beat the surface freely, to close the soil well round the roots. When the soil between the rows gets “baked,” as it is termed, I have it carefully loosened with a pointed piece of wood. This operation is repeated as often as the surface becomes too close. In a soil of this kind, and planted as I have done, I never have failed of a fine bloom, and the colours are exceedingly clear and distinct. There has never been occasion to water the beds more than twice in a dry season. When I have given them any, I have done it so as to reach the bottom of each. My roots get very plump, and keep healthy with such treatment. I take them up when the foliage begins to yellow, and keep them in small bags, laid on ribbed shelves in a drawer. I am confident that if the same plan be practised with this most lovely flowering plant, satisfactory results will attend it.

Manchester, March 7th, 1836.

R.

ARTICLE IX.—*Gleanings from Old Authors. No. III.*

By TULIPA.

As the Tulip season is advancing, perhaps the following extracts (from *Rea's Flora*, 1676) may be amusing to some of your curious readers who are not acquainted with the work.

“The division of Tulips according to Gerrard, Parkinson, Clusius, and Perrarius, is into three sorts—*Præcoces*, *Medias*, and *Serotinas*; early, middle, and late-flowering Tulips; whereas there are but two primary distinct kinds, *Præcoces* and *Serotinas*.”

The following is the manner of his description of the named Tulip flowers, and of which there are about 179, (*viz.* *Præcoces*, 36; *Medias*, 134; *Serotinas*, 9,) besides those he does not describe. I have selected two only, both of which I have.

"Semper Augustus, heretofore of much esteem, hath a flower not very large, but well veined and striped with deep crimson and pale yellow, the bottom and tannis dark violet purple."

"Royal Vesta, or Nonpare, is a better and more constant flower than the last (viz. Vesta). The colours are carnation, crimson, and white. When the flower makes well, the bottom is white and the tannis blew."

"For various colours Tulips most excell,
And some Anemonies do please as well;
Ranunculus in richest scarlets shine,
And Bear's-ear* may with these in beauty joyn;
But yet if ask and have were in my power,
Next to the Rose give me the July flower."

The above few lines are written at the close of the article on July flowers, and it appears that at that period the supply for the growers were brought from Holland, Flanders, and other parts of the Netherlands. He inserts a list of 360 by name, and says,—
"Multitudes of these (seedlings) are often brought over to London, and there sold at mean rates to gardners, who sell them again to others who delight in flowers, commonly for 12 pence a layer; but most of these mercenary fellows about London are very deceitful, and whoever trusts is sure to be deceived, as I myself have often been, even by such of them as I had by many benefits obliged."

"I have heard but of very few good flowers that have been raised of seeds by any in England."

The following is from the *Compleat Florist* (1706):

"Of Sun-flowers or Turnsoles, otherwise called *Heliotropes*."

"Sun-flower is the true name of this plant, of which I am now treating, and 'tis call'd in Latin *Corona Solis*. We call it Turnsole from an Italian word, which signifies turning it self towards the sun: and Heliotrope, from Heliotropium, deriv'd from *helios*, which signifies the sun, and from *τροπεω*, which is in English 'I turn': the flower of this plant turning it self always towards the sun, because it being heavy, and its stalk heated and soften'd on the side next the sun, it must naturally incline that way."

* *Auricula*

"We sow the Sun-flowers of the great sort, but those we call *hardy* are multiplied by their roots, by slitting of the tufts that produce these plants, and of which they always have a quantity sufficient to store us.

"This plant being of two sorts, take notice, that the first sort of 'em is that which grows extreamly high, and that produces but one stalk ; and that the second is that which is lower ; that shoots many more stalks, and that are much fuller of branches.

"The first of them is almost laid aside at present ; and if there be any in our gardens, it is generally in a by-place, or at the ends of some borders ; for they would look very ill planted in borders, and would do harm to the flowers that grow near 'em.

"In regard to the second, you must by no means plant it in any part of your garden : for if the first grows too high, this spreads too much on all sides, and consequently is apt to stifle many flowers that grow round it. The places most proper for them, are great walks, set all along with trees : between which, if we plant these Sun-flowers according to art, and at the distance of at least three foot from one another, they will then look very gracefully.

"We may likewise place 'em in the middle of the little knots of parterres, but in company with no other flower : supposing always that in this, as well as in all the other works and contrivances relating to gardening, we observe a symmetry, that never fails to give pleasure to the sight.

"Sun-flowers are contented in all sorts of earths ; good or bad, they know no difference ; and when their roots are slit for increase, they must be put three inches deep in the earth.

"When the Sun-flowers of the second sort are grown to a middling height, before they have attain'd their full growth we clip with gardening-shears all the branches that grow too much outward, that shoot too far from the main stalk, or that mount too high. The discretion of the workman must guide his hand in taking more or less away, and in giving it the figure that agrees best with it ; which is, in a manner, that of a round bush. The gardner need not give himself much trouble about the culture of this plant ; for without his assistance, Nature alone cultivates it so well, that it produces its flowers in perfection.

"Sun-flowers, as I have said already, are of two sorts ; one of which shoots out a stalk of at least five or six foot high, very strait

and without branches ; whose leaves are almost as large as those of the Vine, notch'd in their edges, a little pointed at their end, and rough to the feeling.

“ At the top of this stalk grows a beamy flower, whose disk is compos'd of several ranks of yellow leaves plac'd in the shape of a crown, in the midst of which are several other ranks of leaves supported on embryo's, divided one from another by leaves folded up like a gutter, and contain'd in a scaly cup. These embryo's come in time to be oblong seeds, shut up in seed-vessels apart from one another.”

The following is the fabulous account given by the ancient heathens as to the origin of this plant. We have most abundant cause for gratitude that we are favoured with the Holy Scriptures, which give us the correct account of the Being who created all things, and the design therein.

“ I must now relate the love of an unfortunate virgin, whose heart was so wounded with that passion, that death was the only remedy could cure her. Her name was Clytia, and she was fallen so desperately in love with the Sun, that she could not be one moment without seeing him. The Sun, who in those days went by the name of Phœbus, was a handsome young man, and of a charming mien and behaviour ; but he had little regard to the passion of his damsel. She enquir'd every where, whither she might go to see him ofttest ; and hearing at length that the Isle of Rhodes was the place he most frequented, she resolv'd to go thither. But alas ! scarce was she arriv'd in Rhodes, when she heard that Phœbus was in love with another. To what unheard-of grief did she then abandon herself, especially when she was too fully convinc'd of that intrigue, by being an eye-witness of the shower of gold that he caus'd it to rain down, and of the roses that were seen to blow the day of the birth of Rhodia, who was the fruit of that amour. She wept, and bemoan'd her condition, to try if Phœbus would have any regard for her : but perceiving that all was to little purpose, she could no longer resist the ill that oppress'd her, but afflicted herself to that degree, that her grief brought her to the grave. Then Phœbus was touch'd with compassion, and in token of his concern for her, chang'd her into a flower, which he commanded should be call'd Sun-flower, in acknowledgment of the love Clytia bore him.”

TULIPA.

PART II.

REVIEWS AND EXTRACTS.

The Landscape Gardener; comprising the History and Principles of Tasteful Horticulture. By J. DENNIS, B.C.L., Prebendary of the Collegiate Church of Exeter Castle, and Author of "The Key to the Regalia." "Architectura Sacra," &c. &c. 8vo. London, 1835.

The work contains some descriptive remarks on a few Country Seats, and interesting observations on Landscape Gardening. A Map of the newly laid out Gardens at Buckingham Palace, and two Views, taken in the Grounds, and a Map of St. James's Park, with a piece of Water, Island, &c. are contained in the work, all executed in a superior manner. The following extract is taken from the Author's remarks on the distribution of Evergreen Trees, Shrubs, &c. &c.

"If yews be planted in proximity to a mansion, for the sake of valuable shelter from bleak winds, they should not assume a prominent position, but should be interspersed with groups of Weymouth pine or bay, and be faced with laurels of luxuriant growth. By such contrast, the gloom of their dingy leaf is relieved with vivid and glossy green; or, if the contrast appear too strong, it may be mellowed by blending Portugal laurel in an intermediate position. In short, the recommendation cannot be too frequently reiterated, to substitute a studied assortment of tints for tasteless indiscriminate admixture. Let but the pictorial artist be permitted, or the amateur condescend, to transfer his principles of taste, the one from his easel, the other from his gallery, to occasional superintendence of English landscape-gardening, and he would contribute to the production of a living vegetative picture, constituting incalculable improvement in style, and commanding inevitable commendation from the spectator of cultivated taste. Nay, pleasure-grounds thus constructed would excite universal admiration, and impart universal gratification. Picturesque effect, copying and harmonising with natural scenery, elicits pleasurable emotions, even in such as 'know not why, and care not wherefore.' But, for accomplishment of such an important desideratum, science must be suffered to acquire unlimited confidence, in exercise of control; while prejudice must cease to plead for senseless custom, more honoured in the breach than in the observance." An individual proprietor, or a public association, might rest assured of the anticipation of a result decidedly warranting the experiment.

"In resumption of the topic of evergreen trees, for formation of a foreground, it may strongly be recommended, while collecting perennial foliage of every species, to permit each variety of the beautiful ilex to predominate. Single or combined, from elegance of shape, delicacy of leaf, and duration of mantling, the ilex constitutes an embellishment almost unparalleled, yet too frequently neglected. (Of faster growth than the deciduous oak, it attains expansion competent to the gratification of the planter's eye, with not less certainty, in the ordinary calculation of life's duration, than to please and profit posterity. It should, then, on various accounts, abound in the probability of a decorated mansion, blended with masses of bay, backed by cypress, yew, and pinaster, and faced with laurel, laurestinus, Portugal laurel, privet, phillyrea, arbutus, with other flowering or variegated shrubs.

"In similar relative situation, but in prominent advance from trees and unblossomed shrubs, flowering evergreens should invariably rank. Defying 'the icy fang and churlish chiding of the winter's wind,' the gay, cheering, precocious laurestinus anticipates the lingering arrival of an English spring. Tenacious of storage and permanently retentive of foliated decoration, it is entitled to numerical predominance over every blossoming shrub. By seasonable intervention and flowering profusion, it compensates for temporary diminution of ornament, in other component ingredients of a shrubbery, thus transferring to nipping winter's gloom the exhilarating semblance of summer's embellishment. Productive of such interesting impression in pleasing the eye, it certainly merits conspicuousness by prominent position.

"The arbutus is a shrub peculiarly elegant and eligible, from perennial decoration, rapid growth, and superior beauty in shape and tint of leaf, from delicate blossom, and glowing berry. If suffered to remain unpruned, by gaining height, it becomes hollow and leafless beneath, retaining, like other evergreens, only two years' leaves, except about midsummer, when the third year's are annexed, some weeks previous to the decay of the first. If not surrounded by evergreens more stunted in growth, for concealment of its lower leafless branches, it should biennially be deprived of a few long shoots, by application of the pruning-knife, the shears being calculated to render a shrub hideously cabbage-poled. Any shrub judiciously pruned will retain resemblance of its natural form. Artificial treatment should be studiously disguised, and interposition of control be invariably concealed.

"The phillyrea presents striking contrast to the gay or gaudy display of flowering shrubs, being characterised by singular chasteness and unobtrusive simplicity. It is of intermediate tint, diminutive leaf, and moderate growth; consequently is precisely adapted to an advanced position. It will there present a striking contrast to the imposing glare of variegated shrubs, whether holly, aucuba, or others of similar class. Here, too, that lowly, yet cheering, harbinger of spring, the mezerion, should rank, interspersed with contemporaneous masses of hepatica, snowdrop, crocus, red daisy, and other vernal flowers, protected by a wicker fence. The cypress is adapted, by its taper form and elevation, to relieve a structure. The pyracantha, pomegranate, trumpet-pomegranate, white jessamine, but, paramount to all, the elegant tamarisk, supply ornamental covering to a wall. In a sheltered nook, even these may be surpassed by the beautiful single-blossomed myrtle. From mildness of climate, it abounds in Devonshire, perhaps in no instance so luxuriantly as in a garden of Mr. Neck's, curate of King's Kerwell, where it acquires considerable size detached from a wall, as well as height when attached. The front of a house at Bishop's-Teington has long been covered to the top by myrtles of forty years' growth, protected from the easterly wind by a wing, and from the westerly by an equal defence, with the advantage of a southern aspect."

The Florist Cultivator, or Plain Directions for the Management of the Principal Florist Flowers, Shrubs, &c. &c. adapted to the Flower-Garden, Shrubbery, and Greenhouse; with Select Lists of the finest Roses, Geraniums, Carnations, Pinks, Auriculas, Polyanthus, Tulips, Dahlias, Heartsease, &c. &c. The whole arranged on a plan different from any work hitherto published. By THOMAS WILLATS, Esq., Amateur Cultivator. London: James Ridgway and Sons, 1835. pp. 360.

We give the following extract to our readers as a specimen of the work, which, though not perfection itself, contains some useful directions and descriptions, which doubtless will be improved upon in future editions.

REVIEWS AND EXTRACTS.

497. LUPINUS POLKREYLLUS, var. ALBIFLORUS.—*White large-leaved perennial Lupine.*

Class 12th.—Diadelphia Decandria.

This beautiful plant is a variety of that deep blue species now so common an ornament of our gardens.

A native of North America, and perpetuates itself by seeds, without varying. It flowers in June.

498. LOPHOSPERMUM ERUBESCENS.—*Blushing Lophospermum.*

Class 14th.—Didynamia Angiospermia.

This very handsome climber is a native of Mexico.

It grows most luxuriantly during the summer, trained to a wall or treillage; but requires to be protected during winter, that the woody stems may be preserved from the frost, to push forth new flowering branches the succeeding year. It increases so readily by cuttings, that it will soon be generally known. It blows in August.

499. ROSA RUGA.—*The Ruga Rose.*

Class 12th.—Icosandria Polygyia.

This beautiful variety, as a garden plant, is one of the most valuable that we are acquainted with. It will sometimes grow 10 or 12 feet in the year, and therefore well adapted to scrambling over old pales, or to covering any other place in which a wildness of appearance is desirable. It is full as fragrant as the sweet-scented Chinese Rose, in colour deeper, especially before being fully expanded. It is readily increased by cuttings.

500. LOASA AMBROSIAEFOLIA.—*Ambrosia-leaved Loasa.*

Class 13th.—Polyandria Monogynia.

This is a very beautiful new Annual, it was placed on the south side of a yew hedge in the garden of the Horticultural Society, where it grew vigorously, attaining a height of about 2 feet and a half, flowering from July to September, and producing seed freely.

It perished at the first approach of frost.

501. SEDUM CEPEA.—*Panicled Stonecrop.*

Class 10th.—Decandria Pentagynia.

It is an Annual, and well adapted to ornamental rock-work. It also grows well in the common border.

It is a native of the South of Europe, and may be seen in the garden of the Horticultural Society.

502. CALOCHORTUS VENUCTUS.—*Spotted Calochortus.*

Class 6th.—Hexandria Monogynia.

A remarkable and beautiful bulbous plant, which flowers in June; at which season it gives a new feature to the flower garden; it is cultivated without difficulty. The bulb should be kept dry till Christmas, and then planted in a pot and placed in the greenhouse, whence it may be placed in the border till frosts appear. It succeeds well in either loam and sand, or common garden mould. It should be planted in the border the latter end of May, &c. &c.

Last month we noticed the "*New Botanist's Guide*," we now give a specimen of this interesting work. Another on the Geographical distribution of British Plants, we are informed, is forthcoming. The present volume includes all the counties of England and Wales.

X. MIDDLESEX AND LONDON.

Finding several plants recorded by writers as growing "near London," I have added them to the Middlesex list, although not expressly mentioned to grow within the county. Some few stations, particularly along the Thames-side, are continued in this county from the *Botanist's Guide*, although appearing to be actually in Surrey. Whether any others have been referred to a wrong county I am not aware; but having usually lived far remote from London, I am not well acquainted with the vicinity. It may be supposed that many of the plants formerly found near London, as inserted in the

NEW OR RARE PLANTS.

Botanist's Guide, have been eradicated from the assigned stations by building and alterations. A *Flora Metropolitana*, to exhibit the actual botany of the country round London, would be a valuable addition to our local flora. But the *Collecting-Bar*, not the *Library*, must give the materials for drawing up such.

**ANEMONE apennina*. Near Harrow on the Hill. *B. G.*

MYOSURUS minimus. Meadows behind the chapel, and in a lane that goes from Copenhagen House to Kentish Town; Mary-le-Bone Park; Islington; Paddington; Paueras; Edmonton. *B. G.*

RANUNCULUS parviflorus. Hackney, Kentish Town, and several places about London. *B. G.*

†*ADONIS autumnalis*. Among the corn at Acton; frequent about London. *B. G.*

†*HELLEBORUS viridis*. Near Harefield. *Eng. Fl.* Down Barn Hill, near Harrow; in a small wood near Finchley. *B. G.*

**CAMELINA sativa*. Road-side at Stoke Newington; Highgate; Isle of Dogs. *B. G.*

COCHLEARIA anglica. Isle of Dogs. *B. G.*

TEESDALIA nudicaulis. Near Hampton Court, and other places about London. *B. G.*

DENTARIA bulbifera. In the Old Park Wood, near Harefield, abundantly. *Eng. Fl.*

**DRABA muralis*. About Chelsea; probably from gardens. *Br. Fl.*

CARDAMINE amara. River-side at Harefield, and about Uxbridge, plentifully; banks of the Thames between Kew and Mortlake; at Chelsea; Isle of Dogs. *B. G.*

! ——— *impatiens*. "Thames-side, near the Botanic Garden, Chelsea. *Martyn*. There can be little doubt but the following species (*C. amara*) was intended." *B. G.*

NASTURTIUM sylvestre. Tothill Fields, and other low watery situations in the vicinity of the Thames. *Eng. Fl.*

SIAMYBRICUM Irio. Waltham Green. (Mr. W. Pamplin.) *W. Christy, sp.* I found this plant by the direction of the Rev. G. E. Smith, which has almost totally disappeared of late about Chelsea, &c. It grows by some new houses in a lane near Waltham Green Church, near Fulham. *W. Pamplin, mss.* About Chelsea, and the whole neighbourhood of London; walls at Brompton; about Haggerstone; on a bank opposite Shoreditch Workhouse, &c. *B. G.*

NEW OR RARE PLANTS

WHICH WE HAVE NOTICED SINCE OUR LAST.

1. *Alstromeria aurantiaca*, Orange-flowered. (*Bot. Reg.* 1834.) A very handsome flowering species. The flower stems grow about three feet high, producing heads of numerous flowers. The flowers are of an orange colour spotted with dark. The plant deserves a place in every flower garden. It may be procured from most of the Nurserymen and Florists. It will require a slight protection from the severities of winter, by mulching over the roots, or covering with a hand-glass, &c. Class, Hexandria; order, Monogynia. Natural order, Amaryllidaceae. *Alstromeria*, from Baron ALSTROMER.

2. *Anchusa versicolor*, Changeable flowered Alkanet. (*Bot. Mag.* 3477.) The plant is a hard annual, a native of the Caucasian Alps, producing numerous flowers, which in their early stage are of a rosy-red colour, but when fully expanded change to a bright blue with a yellow eye, diverging into numerous rays of a whitish yellow colour. Each flower is about two-thirds

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES

ON A HUNDRED KINDS OF THE BEST SHOW DAHLIAS—I am very much pleased with the ample lists of Dahlias contained in the *Cabinet*, and to notice that the form and colour of the flower is given so particularly. I possess about twenty sorts, so am a juvenile grower. I have plenty of garden ground, and am desirous of purchasing about one hundred of the best show kinds. Where so many good kinds are advertised, I am at a loss which to fix upon. I shall, therefore, be obliged if the Conductor of the *Cabinet* will give me a selection of about fifty or sixty of the best exhibited last year, to which I might add the remainder out of new kinds coming out this season for the first time.

CLEGGES.

— *Vicarage, Cumberland, March 4th, 1836*

We did not see flower of all the new kinds now offered for sale but those we did see well deserved the praise. We, therefore, think it reasonable to conclude, that the list is not disproportionate merit. We annex a list of about sixty, which we saw, and each of which deserves a place in every select collection. Our Correspondent may rely on them as the then favorite list. The number may be increased to one hundred by selecting the best of the ones in the lists now advertised, and which are not in the following sixty.—CONDUCTOR

Aeneas (Harris)	Earl Bath (Wheeler's)
Apollo (Widnall's)	Matchless (Wheeler's)
Alpha (Simmonds)	Metropolitan Perfection (Elphinstone's)
Beauty of Telford (Brown)	Metropolitan Lilac (Elphinstone's)
— — — — — Totting (Harrison)	Metropolitan (Potter's)
— — — — — Cambridge (Harris)	Wortley (Harrison's)
Bride (Harding's)	Mrs. Wilkinson (Gardner's)
— of Abydos (Peters)	Napoleon (Smith's)
Canopy (Harris)	Narcissus (Harris)
Color Nulli (Potter's)	Norfolk Rival (Mantell's)
Conqueror (Harris)	Orbit (Harris)
Countess of Sheffield (Mantell's)	Ottoman (Widnall's)
Criterion (Douglas)	Perfection (Sutton)
Druella (Wells)	Petiole Perfection (Harrison's)
Duchess of Sutherland	Phosphorus (Elphinstone's)
Fisherton Rival (Squibb)	Purple Perfection (Squibb's)
Glory (Douglas)	Queen Elizabeth (Brown's)
Granta (Widnall's)	Royal King (Brewer's)
Hadleigh Champion (Gardner)	Saint Adelaide (Brown's)
Hon. Mrs. Harris (Squibb)	Saint Walter (Harrison's)
Inimitable (Harris)	Shower King
Ipswich Beauty (J. Harris)	— Queen
King of the Fairies (Brown)	Sunshine Rival (Tyndal)
King of the Purples (Richard)	Sulphurea elegans (Jones's)
Pourpre (Harrison's)	Stanford (Wells)
Lady Fordwich (Douglas)	Sir Robert Peel (Lockhart's)
— — — — — Georgiana (Harrison's)	Triumphant (Levick's)
— — — — — Lascivious (Harris)	Warminster Rival (Wheeler's)
— — — — — of the Lake (Wells)	Yellow Perfection (Harris)
Lord Lyndhurst (Forreth's)	— — — — — (Stoness)
— — — — — Nelson (Potter's)	

ON A LIST OF CARNATIONS.—An original subscriber would be particularly obliged if *INNOVATOR* will take the trouble of forwarding a list of superior kinds of Carnations, Pinks, &c., similar to the one inserted by him in the last March Number of the *Floricultural Cabinet*.

Bayswater, 21st January, 1836.

ON STOCKS FOR BUDDING ROSES UPON.—I am much interested in the Article on Standard Roses. Can your correspondent, in his future papers, devise any plan whereby persons—who, like myself, can procure, and find room to plant, a very large number of stocks—can be supplied at a small expense with buds of choice Roses? I have already worked all the sorts that I can get near me. This operation is a great pleasure to very many, whose means, like my own, will not permit them to incur much expense. Would any of the Rose-growers take back a certain number of standards, after one year's growth, in return for buds?

February 6th, 1836.

G. I.

ON HEATING BY STEAM.—I have taken your welcome little monthly visitor, the *Cabinet*, from its commencement; and in reading over the Essay on Flowers, communicated by GULIELMUS, and inserted in the Number for June, 1834, I find it stated by the Essayist that he manages very well without either greenhouse or conservatory, and yet he promotes the growth of his flowers in the early part of the year by steam warmth. I shall feel extremely obliged by being informed, through the medium of your invaluable miscellany, the method he adopts to do it.

T. JONES.

Caerphilly, Feb. 15th, 1836.

REMARKS.

PRIZE DAHLIAS OF 1835.—The following list of Dahlias contains the names of fifty sorts, with the number of prizes which they obtained at the exhibitions in 1835. They were of course considered good flowers, having been shown in most instances against immense varieties. There were, however, a few other very superior newer kinds, which had not got into the hands of many growers, who did not, on that account, obtain an equal number of prizes with those inserted here. The advertised lists of this season contain such, and their merits may be pretty accurately ascertained by the respective prices at which they are offered.

The figures opposite each kind denote the number of prizes.

Springfield Rival (Lyne's).....	23	Village Maid (Pothecary's)	15
Cedo Nulli (Pothecary's)	21	Lady Fordwich.....	15
Perfection (Widnall's)	21	Lord Liverpool.....	15
Hon. Mrs. Harris (Squibb's).....	20	Metropolitan Blush.....	15
Lilac Perfection (Harding's)	19	Mrs. General Grosvenor.....	15
Polyphemus (Elphinstone's).....	19	Enchantress (Priestley's)	14
Ariel.....	18	Incomparable (Levick's)	14
Miss Wortley.....	18	Jason (Widnall's).....	14
Granta (Widnall's).....	18	Metropolitan Calypso	13
Metropolitan Perfection.....	18	Othello (Widnall's).....	13
Mrs. Wilkinson.....	17	Emperor (Widnall's)	12
Criterion (Douglas's).....	17	Sir Robert Peel	12
King of the Whites.....	17	Lady Grenville.....	12
Duchess of Buccleugh (Cornack's)	17	Beauty of Camberwell	12
Clio (Paul's).....	16	Orpheus (Brown's).....	12
Queen of Dahlias.....	16	Polyphemus (Wells's).....	12
Picta Formosissima.....	16	Venosa (Wheeler's).....	12
Deadmona (Brown's)	16	Countess of Cork.....	12
Beauty of Cambridge (Brewer's)....	16	Countess of Errol.....	12
Apollo (Widnall's).....	15	Fisherton Rival.....	12
Newick Rival (Mantell's).....	16	Rival King (Brewer's)	12
Perronia (Salter's).....	15	Glory (Douglas's)	12
Prince of Orange (Widnall's)	15	Metropolitan Blush.....	12
Hermione (Wells's).....	15	Solomon (Wells's).....	11
Lord Derby	15	Lady of the Lake (Wells's)	11

A LIST OF THE LOWEST-PRICED DAHLIAS OFFERED FOR SALE IN 1836.
—The varieties of Dahlias being so very extensive, it requires a great deal of trouble to notice all the newest kinds in the lists advertised. To render it more easy for the readers of the *Cabinet*, I have arranged a list of those kinds which are now offered at 7s. 6d. per plant, and upwards. There are many splendid kinds at lower prices, but those I give below are the newest sorts, plants of which I shall have to dispose of in May.

C. W. HARRISON.

Dorchester, March 14th, 1836.

At 21s. per Plant.

Acme (Harris's) white, crimson laced
Beauty of Westbrook, chocolate, white
tipped

Lady Knox (Harris's) white, crimson
tipped

Pieta Perfecta, crimson red, nearly
black edge

At 15s. per Plant.

Conqueror of Sussex, carmine
Publicola (Penny's) white, crimson
shaded

At 10s. 6d. per Plant.

Alpine Shepherdess, white, purple spots

Adelaide (Brown's) white, crimson

Archbishop of Dublin (Penny's) white

Beauty of York, crimson, white spots

— of Tooting, rose, white spots

— of Hammersmith, purple

— tip

— of Canonbury, scarlet

— of Hattersen, rose, yellow spots

— of Sussex, white, purple tip

— of Bath, purple

Burgundy, dark maroon

Countess of Sheffield (Mantell's) purple

— of Morley, rose, crimson

— of Tankerville, white, purple

— tip

— of Pembroke, white, crimson

— tip

Conquering King of Yellows (Page's)

Crimson Triumphant, velvet crimson

Clara (Seaman's) white

Champion (Wells's) rose and white

Claudiana (Ditto) white, rose edge

Dodemonia (Bartlett's) white, purple

edge

Dr. Halley, dark

Excella (Elphinstone's) fine yellow

Emperor (Dennis's) yellow, purple edge

Fisherton, King, white, crimson edge

Gally Knight (Taylor's) crimson

General Pictou, orange, spotted

Highlander, yellow, crimson edge

Harlequin, white, purple spots

Hadleigh Champion, yellow

Ipwich Beauty, white, rosy pink edge

Incomparable (Whitaker's) rosy scarlet

King of Scarlet, fine

Lady Gordon, scarlet, orange tint

Lady Sarah, white, mottled with pink

Lord Talbot (Taylor's) dark plum

Lord Lyndhurst (Penny's) scarlet

Lord Melbourne, plain

At 10s. 6d. per Plant.

Miss Mitford, white, pink tip
Maria Louisa (Brewer's) pink, white
centre

Miss Wilson, white, lake edge

Miss Warl, white, pink edge

Miss H. Kemble, French white and pink

Miss Pinfold, white, puce tipped

Miss Poole, bluish, lilac tip

Madame Vestris, canary, purple tip

Miranda (Cormack's) yellow

Napoleon (Smith's) puce

Orb (Harris's) white, dark tip

Perfection (Squibb's) rosy violet

Pontefract White (Mitton's)

Purple Perfection (Squibb's)

Princess Victoria, white

Queen of the Fairies (King's) white, lilac tip

Queen of the Fairies, yellow, scarlet edge

Rose Incomparable (Scott's)

Standard (Wells's) primrose

Salter (Mitchell's) bluish

St. Louis of Poland, yellow

St. Louis Polyphonus, primrose and

purple

St. Louis (Jeffrey's) purple

St. Louis, rosy lilac

St. Louis, buff, crimson stripe

St. Louis Perfection (Wilmer's)

St. Louis Rival, light purple

St. Louis Perfection (Stones's)

At 7s. 6d. per Plant.

St. Louis, rose

St. Louis Perfecta (Mitchell's) white

St. Louis, white, pink tip

St. Louis, King, dark

St. Louis, puce

St. Louis, white, lilac edge

St. Louis Rival, yellow

St. Louis, orange

St. Louis, purple and pink

St. Louis (Crass's) crimson

St. Louis Star, scarlet

St. Louis of Dalston

St. Louis of Alydos, white

St. Louis of Lullington, purple

St. Louis, white, pink edge

St. Louis Hill, peach and white

St. Louis (Harris's) crimson

St. Louis, yellow, crimson tip

St. Louis, fine red

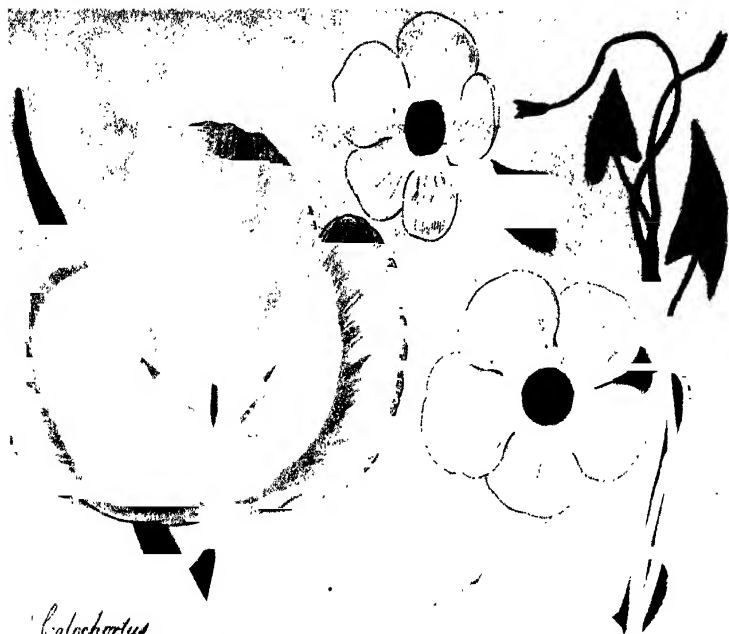
St. Louis, yellow

St. Louis (Brown's) crimson

St. Louis (Harris's) scarlet

St. Louis (Harding's) bronze and yellow

St. Louis, sulphur, purple edge



*Calochortus
splendens*

*Thunbergia
stata alba*



*Pentstemon
torreyi*

At 7s. 6d. per Plant.
Charles, *Rival*, dark and purple
Deliance (*Hale's*) white, rose edge
Darius, purple, crimson
Edwin, *William Cobbett*, yellow
Enchantress (*Evans's*) bluish and purple
Earl Tankerville, rosy red
Enchantress (*Mitton's*) cream, rose edge
Flora (*Wells's*) bluish, crimson spots
Forest Beauty, orange and red
Forester, bronze, lilac and yellow
Fanny Kemble
Flora, white and lilac
Foundling of St. Leonard's, primrose and brown
Fairy Queen (*Harrison's*) white
Grandis (*Marshall's*) crimson
Gloriosa (*Standish's*) rosy lilac
Gratia, light purple
Hero of Wiltshire, white and scarlet
Hopship, *Clrl*, yellow, red stripes
Hero (*Cornack's*) scarlet
Honourable Mrs. Harris, white, carnine and purple
Hector (*Well's*) rosy crimson
Inimitable (*Harris's*) white, purple rosy edge
Jackson's Rival, yellow
King of Dablias (*Forster's*) orange
King of Fairies (*Brown's*) yellow, rose edge
King Otho, rose
Lady Beresford, chocolate, white tip
Lady Georgiana (*Harrison's*) bluish white spotted with pink
Lady Braybrook, yellow tip
Lady Ann, white, rosy pink edge
Lady Jane, bluish lilac
Lord Osulton, rosy lilac
Lord Durham, dark rose
Lovely Ann, pure, white edge, lilac tip
Lynce's Cream, tipped with lilac
Marquis of Abercorn, crimson
Matchless (*Whales's*) crimson & white
Mary Queen of Scots, white and purple
Mexicanus, dark
Miss Moon, white lilac edged
Miss Bridle, white, pink laced
Mutabilis Perfecta, purple, dark stripes
Miss Cust, rose
Miss Campbell, white, pink shades

At 7s. 6d. per Plant.
Mary Penny, (*Evans's*) pink
Maria Antonietta, do. pink
Mandizabel, do. yellow, red edge
Mr. Lenz, purple and crimson
Mona, (*Cornack's*) orange, brown
New China aster-flora, purple, blue shade
Ne plus ultra, white and lilac
Orwick Rival, rose
Orange, (*Dennis's*)
Perfecta, (*Willson's*) light crimson
Phoebe, crimson, white shade
Paris, (*Widnall's*) light purple
Parure, *superata*, purple
Pink gaudissina, crimson, scarlet stripes
Plenon non, rose, crimson stripes
Ritdown Rival, rosy purple
Queen of Beauties, primrose, white edge
Queen Elizabeth, (*Brown's*) highly purple tip &c.
Rode L'empire, (king of purples) fine
Royal gaudiflora, fine red
Royal Adelaide, (*Clark's*) rosy buff
Royal rover, red
Sir H. Fletcher, crimson
Sutton's Perfection, rose
T., leading, purple
Sir Edward Stigden, puce
Sarah (*Penny's*), white, with bright crimson
S., high Rival, crimson
Sulphur a perfecta, (*Scott's*)
S., elegant, (*Jones's*)
Trojan, faded purple
Trumpet (*Elphinstone's*), yellow
Urania, yellow and rose
Urania, white, pink edge
Venus (*Bennett's*), white, purple shaded
Virginia, white, pink shade
Column, cream and pink
Venus (*Bennett's*), slate colour
W., white, white edge
Weeping Beauty (*Pinee's*), orange scarlet, dark stripes
William Cobbett (*Forster's*), scarlet
Yellow Perfection (*Harris's*), crimson edge
Yeatmanauum, amber, scarlet edge

REFERENCE TO THE ILLUSTRATIONS.

1. *Calochortus splendens*. The showy one. This is another handsome flowering species of *Calochortus*. It is a bulbous rooting plant, a native of California; and was sent to the Garden of the London Horticultural Society, by the late Mr. DOUGLAS. This, when grown in contrast with *C. venustus*, (see plate in February number), produces a handsome and striking effect. — The present species requires the same treatment as *C. venustus*. (See p. 47.)
2. *Thunbergia alata alba*. The variety here figured is an hybrid production, and we are informed raised between *T. alata* and *T. fragrans*. It is a most pleasing and beautiful flowering plant. It is a greenhouse climber, but does equally well in a greenhouse during summer; where, if it be allowed plenty of pot room, it will grow luxuriantly and bloom profusely. It

not suffering them to become absolutely dry ; for though the plant is so tenacious of life as to be able to live for a considerable time, in either of those extremes, to succeed creditably both must be avoided. The compost we use, consists of equal parts of brown strong loam, peat, and leaf mould, with a moderate portion of broken pot ; potting is regulated by the season of flowering, and may be performed immediately after the flowers are gone, when they are potted with balls entire ; but when the plants are to be divided, it is better deferred until the young offsets have emitted their roots a few inches, they may then be carefully separated from the parent, and potted in pots of a smaller size. We have recovered unhealthy plants, by shaking them out of the pot, and washing every particle of soil from the roots, replotting them in the compost above named.

ARTICLE II.—CULTURE OF THE DOUBLE POMEGRANATE,

BY A DEVONIAN.

OBSERVING that the query of "C. S." in the March number of the *Cabinet*, on the blooming of the Double Pomegranate, has not been answered, I beg to forward this extract from Evelyn's *Silva*, which may probably be useful to the enquirer. "There are of this glorious shrub three sorts, easily enough educated under any warm shelter, even to the raising hedges of them ; nor indeed effects it so much heat, as plentiful watering. They supported a very severe winter in my garden, 1663, without any trouble or artifice ; and if they present us their blushing double flowers for the pains of recission and well pruning, (for they must be diligently pruned of superfluous wood) it is recompence enough. It is a *Perdifolia* in winter, and growing abroad, requires no extraordinary rich earth, but that the mould be loosened and eased about the root, and hearty compost applied in spring and autumn ; thus cultivated, it will rise to a pretty tree. 'Tis best increased by layers, approach and marching (as they term it,) and is said to marry with laurels, the damson, ash, almond, mulberry, citron, too many I fear to hold. But after all they do best being eased, the mould well mixed with rotten hogs-dung, its peculiar delight, and kept to a single stem, and treated like other plants in the winter shelter." There seems, however, to be some contradiction in the quaint writer's statement, and most assuredly the plants do *not* require "the winter-shelter" (at least in the South of England) to induce them to flower abundantly, but I know from experience, that they are capricious bloomers, and very often the whole strength of the plant is apparently engaged in the formation of countless bran-

ches and foliage. I have a double red pomegranate many feet high, trained against the front of my house, which for years never produced a single blossom; to induce it to flower, I removed all the soil around it, and filled the pit with a rich compost, but this plan was not successful, as for two seasons a solitary blossom only was produced. I was then recommended by a nurseryman to have some of the principal roots cut through, to check the luxuriant growth of the plant, which, early in the ensuing spring, was done; this plan succeeded perfectly, and towards the end of the summer, numerous blushing double flowers were produced—and the tree has ever since bloomed annually. I do not however, recommend this plan to “C. S.,” those plants are probably too young to blossom, whereas mine is upwards of thirty years old; notwithstanding, comparatively small pomegranate trees often flower abundantly, and I have seen one not above five or six feet in height, which had fifty blossoms open at one time,—the soil in which it was growing was a heavy loam,—almost clay, which kind of earth suits the pomegranate better than any other. I agree with Evelyn in considering this a “glorious shrub,” and its brilliant flowers are assuredly a sufficient recompence, for any trouble we may take with it. Does “C. S.” know the yellow variety? it is worth having, as its blossoms are similar in size and shape to the red, but of a delicate sulphur colour; there is also a white variety, but I am not acquainted with it. I hope my hints may be useful to “C. S.,” though, being only an amateur, I cannot give that information, which a scientific gardener is capable of imparting.

ARTICLE III.—ON THE MANAGEMENT OF THE DOUBLE FLOWERED POMEGRANATE, *PUNICA GRANATUM MULTIPLEX*.

By Mr. David Whale, Gardener, Warrington.

THE Pomegranate is an old inhabitant of our gardens, but it seems to have been known to the Africans for many ages before it came into our possession; it is mentioned in holy writ, as being in the possession of the Egyptians more than 3000 years ago; it is a native of the South of Europe and North of Africa. Dr. Sibthorp, informs us, that it is found plentiful in Greece, both in a wild and cultivated state; it was introduced into this country about the year 1548. The double flowering kind is much more esteemed than the other in this country, for the sake of its large fine double flowers, which are of a most beautiful scarlet colour; and if the trees are well managed, and supplied with due nourishment, they will continue to

produce flowers from four or five months successively, which renders it one of the most valuable flowering trees; this sort may be rendered more productive of flowers, by grafting it upon stocks of the single kind, which check the luxuriance of the trees, and cause them to produce flowers upon almost every shoot. There have been various ways recommended to manage the pomegranate, so as to make it flower freely, and forty years experience has taught me what I conceive to be the most successful method. I do all my pruning in the summer season, training the branches at a regular distance, of about four inches apart, in the same way as I train a plum tree; towards the latter end of June I look over the trees, and remove all the shoots that are running to wood, at which time they are young and tender, and are easily removed without the assistance of a knife. Care must be taken to leave all blossom shoots and spurs, these are easily distinguished from wood shoots; this I do about three times during summer, and by this treatment the tree continues to flower four or five months, making a very grand appearance, and repaying by its beauty for every care a gardener can bestow.

P. S. The knife should never be used about these trees in winter, except to remove decayed branches, &c. They are easily propagated by layers or cuttings. To accomplish the first: in March, select some of the young branches for the purpose, give a little slit at a bud underneath, they will easily strike root without slitting, and I consider that method to be the safest; lay them in the usual way, water them occasionally during the summer, and by the following autumn they will be well rooted so that they may be taken off and removed to any warm situation, to gain strength, before they are planted where they are to remain.

Cuttings.—If cuttings are required in June, take some young tops of branches, select a warm place in the garden, place them under a hand-glass, shade them in hot weather, and by autumn they will have taken root.

ARTICLE IV.—REMARKS ON STOVE PLANTS.

BY THE AUTHOR OF THE DOMESTIC GARDENERS' MANUAL

THERE are some plants which, doubtless, require what may be termed a lively heat during winter, (60 to 65 degrees) but there is a good deal of error and misconception abroad upon this subject. and many persons deny themselves the enjoyment of much exquisite beauty, by admitting the belief that *all* stove plants are tender. I certainly admit that tropical natives, if they are to be retained in verdure and

growth (if such it can be called) at all seasons, must not be permitted to inhabit an erection where the thermometer shall fall below 55 degs. But if the lovers of plants be content to let the verdure of a good, airy, dry greenhouse, be supplied by Camellias, Heaths, Myrtles, Orange-trees, and the like; and to suffer a number of lovely flowering stove plants to sink into repose during November, December, and the half of January; they may try the aid of a vinery, or even of a pit, with a flue in it, indulge their taste, and excite the Chinese Hibiscus, (*Hibiscus Rosa Sinensis*) and all its single and double varieties—the fragrant, West Indian *Brunfelsia*, (*B. Americana*) the elegant purple Guava (*Psidium Cattleianum*) the coffee—(*Coffea Arabica*.) All the Gesnera and Gloxineas—*cum multis aliis*—to renewed life and perfection.

I, this winter, from unavoidable alterations, had all my stove plants exposed to direct frost; many to five or six degrees of it; and now by the aid of a vinery at work, kept very moist, have brought numbers into complete healthy verdure.

I do not recommend any dangerous experiment, nor would I advise any one to expose his plants to a depression below 40 degrees; sooner than do so, I would place them in a dark cellar: but I certainly have seen proof of what many plants *can* endure; and therefore, am quite satisfied that a very gratifying addition may be made to collections of subjects possessing surpassing beauty, without incurring any risk of a loss from causes which would prove entirely destructive to a common Geranium.

March 8th, 1836.

ARTICLE V.—ON HEATING GREENHOUSES, &c.

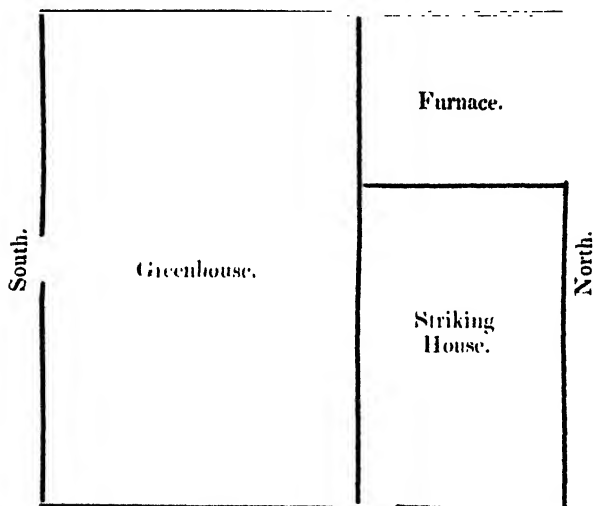
BY C.

THE defeat of the present different modes of heating structures for horticultural purposes, is the daily occurrence of the trouble of managing the fire required. To obviate this inconvenience, a cistern containing several hogsheads of water might be substituted for the pipes now in general use: and a reservoir of heat obtained which would last for several days.

The cistern might be adapted to form the under part of the pit of a striking-house, facing the north: and so contrived as to communicate warmth to a greenhouse adjoining the back of it, facing the south.

A rough sketch of the plan is subjoined: and if you think the idea worthy consideration, I should be glad to see a notice of it in your

valuable Journal, and perhaps some reader may point out a good mode of obtaining the greatest degree of warmth by such a method of heating.



ARTICLE VI.—COLLECTANEA.

BY J. K.

FLORICULTURAL IMPOSTERS.—Our neighbours the French, ever and anon, make experimental visits to this country, with a cargo of nominal rarities for our flower amateurs. Last spring, an elderly man with a youth, who spoke broken English, for an interpreter, visited Nottingham, Leicester, Birmingham, and Bath, with yellow moss roses, black moss roses, yellow camellias, yellow lilacs, and other articles with names equally tempting. It is well known, that a yellow camellia or black moss rose would be invaluable, therefore, these most alluring names, tempted many of the neighbouring gentry to become purchasers, at large prices; but, however, last summer, when the plants flowered and showed their characters, the roses proved to be of the most common description, and the yellow camellia only the common red one. Some adventurers of this description sold, what proved to be common yellow laburnums, for scarlet and dark red laburnums by auction at the Egyptian Hall, Piccadilly, and at the Mart last spring, and realized such high prices, that the imposter must have returned to his brother florist in France, with more money than

the whole of their collections were worth. The Frenchmen sold last spring, roses, and falsely called them scarlet lilacs, and red laburnums, to the amount of £1000 in London alone.—*From the Bath Journal.*

GIGANTIC FLOWER.—In 1818, Doctor Arnold discovered in the Island of Sumatra, a flower, which, he named the *Rafflesia Arnoldi*, and which an author has called with much justice “the magnificent Titan of the vegetable kingdom.” The human mind had never conceived such a flower, the circumference of the full expanded flower is nine feet, its nectarium calculated to hold nine pints, the pistels are as large as cows horns, and the entire weight of the blossom computed to be fifteen pounds.

FIRESIDE TRADITION has given to many an herb and bird, a stamp and odour of Ould Langsyne, the Pansy is still sacred to Oberon and Titania; the Miseltoe is not of our generation; the mandrake is still a departed fearful ghost of other days; the toad is the most ancient of reptiles; and the raven is “a secular bird of ages”; but this imputation of antiquity belongs not to every flower that has been sung in past ages; the rose and lily have been time immemorial the poet's themes, yet they are not antiquities, their loveliness has no more relation to one age than another.—*Fragment from Chamber's Journal.*

The first evening meeting of the Bath Royal Horticultural and Floral Society, for the purpose of Horticultural discussions, took place on Tuesday evening, Jan. 12th., at Mr. Collings's, Saville Row, and was well attended, R. Godfrey Esq. in the chair, who delivered an able introductory lecture, H. St. John Maule Esq., read a paper contributed to the society by the Rev. R. Hoblyn, on the best means of cultivating the Hautbois Strawberry. Mr. Slater read a short paper on the means of growing the roots of Hyacinths in this country, in as great a perfection as those imported from Holland. S. Barrow, Esq., will take the chair at the next meeting, when specimens of Camellias, and forced Hyacinths, Tulips, &c., will be exhibited.

Horticultural Society of London, Dec. 1st. The collection of flowers exhibited, was interesting, considering the late period of the year, especially the collection of chrysanthemums, from the society's garden, the different specimens of plants from the Hon. W. F. Strangeways; and some very fine specimens of the *Bignonia venusta*, from Miss Trevor, of Tingrith, near Woburn. Independant of the beauty of this plant, the season of its blossoming must always render it one of the most desirable of hot-house climbers, being found to continue in flower from the beginning of November until February,

and in the present instance to cover the whole stove, a surface of 500 feet.

According to a paper read at the Medico-Botanical, December 8th, from M. Richard of Paris, the *Aconitum ferox* is described as the most deadly poison known in the southern hemisphere; the *Aconitum Napellus*, common monkshood, and *A. Lycoctonum*, is described as having very poisonous qualities, but their effects have been much exaggerated.

PART II.—NEW AND RARE PLANTS,

Noticed since our last.

1. *ANGRÆCUM CAUDATUM*, (Bot. Reg. 1844,) Long-tailed. A very curious species of the Orchideous tribe of plants, cultivated with great difficulty in the collection of Messrs. Loddiges's at Hackney. The plant is secured to a piece of wood, and is suspended in the stove. The flowers are produced upon a long and pendulous spike. The ovary is of a dark brown, with numerous darker spots upon it. Labellum, white. Column of a dark green. The flower is about three inches across. *Class*, Gynandria. *Order*, Monandria. *Natural Order*, Orchidaceæ.

2. *AZALEA NUDIFLORA*, Naked flowered. (Maund's Bot. Garden.) An old inhabitant of our gardens, having been introduced into this country from North America in 1734. From this an immense number of varieties have proceeded, being impregnated with other kinds. This genus is now reduced to a very few species. The original separation of *Azalea* from *Rhododendron*, was in consequence of a difference in the number of stamens. The latter having ten, and the former only five. This distinction, however, is not found constant, and the greater part is now included in *Rhododendron*.

3. *CAMPANULA LOREYI*, Lorey's Bell Flower. (Brit. Flow. Gard.) Synonyms, *C. baldensis*, *Cramosissima*. A *hardy annual* of considerable beauty, introduced in 1825, from Mount Baldo. The plant is of easy culture, and produces seeds abundantly; it grows about nine inches high, flowering freely. Some of the blossoms are of a fine purple blue colour, and others of a pure white. Each flower is two inches and upwards across. When the plant is cultivated in masses, the flowers are very showy and ornamental, and continues in blossom for many months. *Pentandria Monogynia*, *Campanulaceæ*. *Campanula* from *campana*, a bell, the shape of the flower. The specific name was given in compliment to Dr. Lorey, its discoverer. Seeds may be obtained of the London Seedsmen. See Advertisement in the Cabinet.

4. *CHELAGASTRA GRACILIS*, Slender (Bot. Mag. 3481) Synonyms, *Rhexia gracilis*. The plant is a native of Brazil, from whence it was sent by Mr. Tweedie to the Glasgow Botanic Garden, where in the hot-house it has bloomed. The plant is of the natural order *Melastomaceæ*, and is one of the handsomest of that tribe. The flowers are of the colour, and nearly the size of the *Calandrinia speciosa*. Decandria Monogynia. *Melastomaceæ*. *Chaetogastra* from *chaite*, a bristle; and *gastes*, from the numerous quantity which cover the ovary.

5. *COOPERIA CHLOROSOLEN*, Green-tubed. (Bot. Mag. 3482.) A native of the Texas, from whence it was sent by Mr. Drummond. The present species bloomed in the fine collection of the Honourable and Reverend Wm. Herbert, Spofforth. The flower is of a pure white, about an inch and a half across. (See page 63 of the *Cabinet*.) Hexandria Monogynia, *Amaryllideæ*. *Cooperia* in compliment to our friend Mr. Cooper, of the Wentworth gardens.

6. *COREOPSIS SENIFOLIA*, Six-leaved. A perennial plant a native of North America, and introduced into this country in 1812. The leaves grow in whorls of six in each. The plant grows about two feet high. Flowers produced in a corymb. Each is about an inch and a half across, of a deep yellow colour. *Syngenesia Frustanea*. *Compositæ*. *Coreopsis* from *Korris*, a bug; and *opsis*, a resemblance, alluding to the seeds.

7. *CRATÆGUS MICROCARPA*, Small fruited Hawthorn. A very considerable accession of beautiful kinds have been added to this deservedly esteemed genus within a few years, and add much to the ornament of our pleasure grounds, both in their blossoms and splendid fruit. The present species is a native of Georgia and Carolina, where it grows to a tree of twelve or fourteen feet high, but does not grow near so high in this country. The blossoms are white, appearing in May and June. The fruit is produced abundantly of a fine red colour.

8. *CRATÆGUS HETEROPHYLLA*, Various-leaved Hawthorn. This is one of the handsomest of the whole tribe. The tree grows in a conical form, flowering most profusely; the blossoms are white, and are succeeded by fine sized berries, which are of a rich crimson colour, and render the plant very ornamental. *Cratægus* from *kratos*, strength; referring to the wood.

9. *GOODETIA LEPIDA*, Smart Goodetia. The flowers of this new annual very much resemble some of the *Oenotheras*, particularly *O. decumbens*. The flowers of *G. lepida*, are of a pale purple with a light centre, each petal is marked at the upper part with a large

patch of a crimson purple colour, and gives the flowers a pretty appearance. The plant grows about half a yard high, and is a most profuse bloomer; it certainly merits a place in the flower-garden.

10. *KENNEDYA STIRLINGHI*, Sir James Stirling's *Kennedya*.—Seeds of this very neat and pretty flowering plant, were sent by Sir James Stirling from the Swan River to Robert Mangles, Esq. of Whitmore Lodge. It is a trailing greenhouse plant, blooming in April. The flowers are produced in pairs, they are of the pea tribe, each about half an inch across, of a fine scarlet colour:

11. *LINUM BERENDIERII*, Berendier's yellow-flowered flax.—A native of the Texas, introduced into this country last year. It is a very beautiful flowering species, a hardy annual, and a great acquisition to the flower-gardens. A single plant produces a number of stems, which are much branched, and become clothed with flowers, of a fine deep yellow colour, with an orange scarlet eye. Each flower is about an inch and a half across. The plant deserves a place in every flower-garden. Pentandria Pentagynia. Linææ. Linum from Llin, the celtic term for thread.

12. *MAXILLARIA RUFESCENS*, Brownish flowered. Mr. Lowe of Clapton, introduced this species into this country from Trinidad. The flower is small, the petals are of a brownish red colour, labellum of a fine yellow, spotted with rich crimson. Maxillaria from the labellum, resembling the maxillæ of some insects.

13. *OXURA CHRYSANTHEMOIDES*, Ox-eye, like *Oxura*. A new hardy annual, introduced from California by the late Mr. Douglas. It has bloomed in the garden of the London Horticultural Society, during August and September. The flower much resembles the common *Chrysanthemum coronarium*, of a deep yellow colour towards the centre, but lighter at the ends of the petals. Syngenesia Superflua. Compositæ *Oxura* from *orus*, sharp; and *oura* a tail.

14. *PERISTERIA PENDULA*, Pendulous Dove-flower. A fine and singular flowering orchideous plant, from Demarara. It has recently bloomed in the collection of John Allcard Esq., Stratford Green, near London. The flowers are produced upon a pendant scape, which is about eight inches long, and bears five or six flowers upon each. Each flower is near two inches across, fragrant, of a greenish-white colour on the outside, the inside of a slight blush colour, spotted with purple. The lip is of a dingy white, also much spotted with purple. Gynandria Monandria Orchidææ. *Peristeria* from *Peristera*, a Dove; its column resembling a dove in form.

16. *POTENTILLA MOLLISSIMA*. Soft-leaved. The plant is a native of South of Europe, and introduced into this country in 1832

It is a hardy perennial, growing about half yard high, blooms from June to September, each flower is about an inch and a half across, of a fine sulphur yellow colour. Pentandria Monogynia Rhodoraceæ. *Potentilla* from *Potens*, powerful; supposed medicinal qualities.

17. *RHODODENDRON FLAVUM*; VAR. *CORONARIUM*; Garland Flowered Rose Bay. Synonym, *Azalea pontica*, var. This is a very profuse, and showy flowering variety, which has been introduced from Holland. It is by far the handsomest of the yellow blossomed kinds. The flowers are produced in large heads, each having fifty or more upon it, and they are of a fine deep yellow. Mr. Knight of Chelsea, possesses this splendid variety.

18. *VERONICA EXALTATA*, Lofty Speedwell. The plant is a perennial, and a native of Siberia, from whence it was introduced in 1816. It grows about four feet high, flowering from July to September. It produces numerous spikes of fine blue flowers, which are very showy. *Diandra monogynia*; *Scrophularinæ*; *Veronica*. From the name of a princess.

NEW PANSY, &c.—We have been very much pleased with a seedling Pansy, raised by Mr. Barratt, Nurseryman, Wakefield, named Pearson Walton. It is of a most splendid puce, as its ground colour. The fine colour and shape of the flower render it deservedly admirable. We are glad too to find that associated with it, is the name of a gentleman who is not only an ardent lover of Floriculture, &c. but equally an encourager of the same. Mr. Barratt, we saw, possesses a superior kind of *Ribes*, named *R. coccinea*, which far surpasses in colour the beautiful *R. sanguineum*. CONDUCTOR.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERY.

ON MIMOSA SENSITIVA.—A debtor to the *Floricultural Cabinet*, would feel himself greatly obliged, if any correspondent would inform him of the best method of raising the Sensitive Plant—*Mimosa sensitiva*. Last spring, I sowed some seeds in a pot of earth, composed of peat, mould, and fine sand, and plunged them into a frame of moderate heat. They came up very sickly in appearance; I afterwards repotted them in 48's with the same compost, and placed them in the best situation in the greenhouse, when, upon growing a little, they gradually died away.

Loughborough, March 12th. 1836.

ANSWERS.

In Reference to Roses changing their colour, by change of situation &c., I have to observe, that this does sometimes occur, but upon close observation, it will generally be found to have proceeded from a predisposition in the plant to disease, arising from some external injury it may have received when in full vigour of growth, or from very indifferent soil. I have seen in several instances, George the Fourth, bloom quite a pale red, as Mr. Rivers observes, scarcely to be recognised; but proceeding from one of the above causes.

March 7th, 1836.

A. GODWIN.

ON THE HISTORY OF THE DAHLIA.—In reply to your correspondent, "A. Z." p. 45, I beg to observe, that the Dahlia is stated to have been introduced in 1789, by the Marchioness of Bute, as a native of Mexico, and that the Comte de Vandes imported several varieties from France, where the plant had been cultivated for some years with great assiduity, by M. Lelieur, at Sevre, near Paris. (Vide Bot. Mag., Vol. XLIV, p. 1885.) M. Decandolle, observes, that "it may be inferred with a degree of probability approaching to certainty, that no blue variety of Dahlia will ever be found, because, blue and yellow being the two primitive colours of flowers, and always exclusive of each other, no blue flowers can change to yellow, nor yellow to blue. I must confess, that it would have been more desirable, to have adhered to Decandolle's and Willdenow's name, *Georginia*, in preference to the more common appellation Dahlia, particularly as we have the genus *Dalea*, a name by which it is too often improperly called.

Botanic Garden, Bury St. Edmunds, Feb. 4th. 1836.

N. S. H.

ON DESTROYING THE MEALY BUG.—In your January Number, a Regular Subscriber desires to know the best mode of destroying the Mealy Bug; I therefore, feel much pleasure in answering his query, as the mode I have always adopted, has, in every instance proved most satisfactory. The remedy is, simply to dust the plant or plants with Tobacco Snuff, and the Mealy Bug will in a few minutes cease to exist; as the snuff will not injure any plant, when it is applied in this way, it should not be washed off for some time, as the larva of the mealy bug is so very minute, thousands might escape untouched. I have also found it most efficacious in destroying the Aphis, and other noxious insects, on plants which will not bear fumigation. Any plant, however, dusted with snuff, should not be watered overhead, until it be clean washed, as the snuff when wetted on the leaves has an unsightly appearance. Trusting you will excuse this obtrusion on your useful pages, under the hope, that it will answer the purpose which the querist desires.—I am Yours.

J. C. H.

REMARKS.

ON SUPERIOR PINKS.—The article in the March Number of the *Cabinet*, under the name of *Innovator*, being wrote in the full spirit of ridicule, it is not my intention to trouble the reader with much in reply, more particularly as the writer is a *Sculker*; one part, I must confess, is really amusing, viz. he having introduced in his ridiculous Article, Bows Cato. This Pink was not named by me to Mr Smith, and is, I believe, one of the smallest Lancashire Pinks, yet this Mr. Innovator, has selected this against his one in the Ring (*this is most beautiful.*) Let me recommend my brother florists to grow such Pinks as I have named, that is, if they wish to possess what is called *Florists' Flowers*; if on the other hand, they want Pinks without form, *bursting pods*—the centre full of small leaves, the lacing bad, the colour also bad, they may then apply to Mr. Innovator *with the needful*, and I have no doubt he will find them. I shall be most happy to correspond with any brother florist, on the good or bad properties of a pink, and where they are to be had. But must request to have their *name* and place of abode, none else shall be noticed by me, for such *bush fighting*, as appeared in *Innovator's* remarks, is to say the least unmanly. T. CONNELLY.

Lancaster, March 12th, 1836.

EXHIBITIONS AT THE GARDEN OF THE HORTICULTURAL SOCIETY OF LONDON, FOR 1836.

"MEETINGS will be held at the society's garden, for the exhibition of choice specimens of flowers or fruit, on the three following days:—SATURDAY, May 11; SATURDAY, June 11; and SATURDAY, July 9, to which exhibitions all persons, whether fellows of the society or not, are invited to contribute.

"To enable exhibitors fully to understand the object of these meetings, and the description of horticultural productions of which it is desirable that they should consist, the following regulations have been adopted:

SUBJECTS OF EXHIBITION.

"Medals will be given for subjects of the following description:

Gold Knightian & Large Silver Medals.

"Alstromerias.

"Stove Orchideæ, in collections of four species.

"Ditto, single specimens of any ornamental Asiatic species.

"Stove or Greenhouse Plants, in collections of six different kinds, single specimens.

"Ditto, in collections of ten different kinds, and not exceeding six specimens of each kind.

Large Silver & Silver Knightian Medals.

"Hardy Azaleas, in collections of six rare kinds.

"Greenhouse Azaleas, single specimens, and in collections of not more than six kinds.

"Anaryllidæ, in collections of six specimens.

"Cacti, the tall kinds, in flower.

"Ditto, the melo-shaped kinds, whether in flower or not.

"Eusatie, Cape kinds, in collections of twenty varieties.

"Ferns, tropical kinds.

"Grapes.

"Heaths, Cape kinds, in collection of twelve.

"Hardy Orchideæ, if cultivated for more than one year.

"Stove Orchideæ, single specimens of any ornamental American species.

"Ditto, of any ornamental African species.

"Pineapples.

"Roses, Chinese and Noisette, in collections of twenty varieties.

"Garden Roses, in collections of fifty varieties.

"Succulent Plants, not before enumerated, in collections of six specimens.

"The best single specimen of an or

namental New Holland Plant.

" Ditto Cape Plant.

" Ditto New Zealand Plant.

" Ditto Chinese Plant.

" Ditto of any new, hardy, ornamental shrubby plant.

Silver Knightian Medal.

" Anemones.

" Balsams, in collections of six specimens.

" Calceolarias, in collections of six pots.

" Carnations, Pinks, or Picotees, in collection of twenty-four varieties.

" Cucumbers, in braces.

" Cockscorns, in collections of three specimens.

" Figs, in dishes.

" Heart's ease, in stands of thirty varieties.

" Melons, single specimens.

" Pelargoniums, in collections of twelve varieties.

" Peaches and Nectarines, in dishes of six specimens.

" Stove or Greenhouse plants, not enumerated elsewhere, one single specimen.

" The best single specimen of any new, hardy, ornamental herbaceous plant.

" In addition to which, the society offers its large gold medal, valued at £25, to that exhibitor who shall obtain the greatest value in prizes on any one day, provided he gives up his claim to what ever other medals he may have gained. The value to be ascertained by reckoning

A gold Knightian medal worth 10

A large silver medal, worth 5.

A silver Knightian medal, worth 1.

" Should two or more exhibitions be found equal in the award of the judges, then each will have the large gold medal.

" In consequence of the dies of the large and banksian medals having become worn out, two new dies are in the course of preparation, one of which will still be called the large medal; and the other, with the head of Mr. Knight, the president of the society, will be named the Knightian medal.

JUDGES.

" The respective merits of competitors will be decided by a conference between the judges, not exhibitors, especially appointed for the occasion, and a committee of the council of the society; and the award will be the expression of the joint opinion of those two bodies, in forming their decision, will be directed to follow these regulations strictly, ob-

serving—that the medals are offered not for objects which are merely curious, but for the most remarkable and valuable specimens of horticultural skill,—and that the design of the council in instituting these meetings, is not to encourage the mere collector, but to reward the success of the skilful gardener.

N. B. No Exhibitions can be placed upon the Tables unless they belong to some one or other of the Classes above described; and no award will be made by the judges in cases where the objects exhibited do not appear worthy of a medal; otherwise a bad single exhibition might obtain a first prize, merely because there was no better exhibition of the same class to oppose it.

FLOWER STANDS.

" Provision will be made by the society for placing on the tables such specimens as may be furnished by exhibitors; but as flowers travel most securely when fixed permanently in boxes, and as many persons prefer their own stands, it has been determined that any exhibitors may use their own boxes or stands, under the following conditions:

" No box or stand shall exceed eight inches in height at the back, or eighteen inches in depth from front to back. The lids of all boxes must either be loose or made to unhinge. No box with a fixed lid will, on any pretence be allowed to stand upon the tables.

DELIVERY OF OBJECTS FOR EXHIBITION.

" Exhibitors are earnestly requested to notify in writing, previous to the day of meeting, what it is their intention to supply in order that due provision may be made for the proper distribution of the plants, &c. on the exhibition tables. The best places will be secured for those who comply with this request.

" As the garden will be opened at 1 P. M. for the general admission of visitors, it is necessary that the judges should proceed to consider the respective merits of the exhibitions by 11 A. M., and as it is absolutely indispensable that the tables should be in order by that time, it

has been determined that no subject for exhibition should be admitted into the garden after half-past nine o'clock in the morning; and if the owners of any tree of the council of the society; and locked-up boxes, or other cases already received, should not be in the exhibition tent at the said hour, such cases or boxes must be excluded from the exhibition. All specimens, whether of fruit or

flowers, will remain untouched until after six o'clock, when they will be delivered into the hands of the exhibitors.

"Every exhibitor will be required to sign a written declaration that every article exhibited has been in the possession of the exhibitor at least four months.

ADMISSION OF VISITERS.

"The garden will be opened, on each day, to fellows and visitors, from one o'clock till sunset, under the following regulations."

"All fellows of the society will be admitted without tickets, on signing their names in a book at the entrance. Visitors will be only admitted by tickets, to be obtained through fellows of the society."

"All fellows who shall, on or before Tuesday, the 5th of April, subscribe to-

wards defraying the necessary expences, will receive three tickets for every half guinea so subscribed.

"After the 5th of April tickets will be delivered to fellows on their personal application, or written order, at the price of five shillings each.

"All tickets subscribed for, and not taken by the subscribers on or before Tuesday, the 19th of April, will be charged five shillings each.

"Each ticket will be available for admission to either of the three exhibitions, at the option of the visitor.

"All applications for tickets must be made at the society's office, 21, Regent Street.

"Any tickets issued at the garden on the days of exhibition will be at the advanced price of ten shillings."

ON STRIKING YOUNG SHOOTS OF DAHLIAS.—I have, during February and up to the 10th of April, been occupied in striking young shoots of Dahlias, and I find a considerable difference is required in the age of taking off shoots so as to strike them certainly. Some kinds I find have robust and coarse shoots, it these be taken off before they get about five inches long, I find them very liable to rot off. Whereas, those of a less vigorous habit, and having smallish shoots, will strike if taken off at two inches long. I find, however, that younger the shoot is, more sand must be used in the soil to keep it open, to allow the water to pass away freely. I break my shoots clean from the old root whenever I can; it is easily done. I find such root much better than when a shoot is cut through close under a joint. If shoots be taken off when not more than two or three inches long, they may be removed without injuring any remaining that may be upon the old root. I have sometimes found where a quantity was pushing up closely, that to cut a little carefully with a point of a penknife so as to assist in separating it, has been of assistance.

J. JONES.

Chester, March 10th, 1836.

LITERARY NOTICE.—A Prospectus of an intended work on tropical Orchideous Plants, by Dr. Lindley, to be published by Messrs. Ridgway, has been sent us. The work is named *Sertum Orchideum*; the meaning is, The Orchideous Garland. It will contain figures of the most superb and interesting kinds. It will be published in twenty-two monthly parts, in folio size. Each part will contain five plates.

CONDUCTOR.

THE TREE DAHLIA.—An arborescent species of Dahlia, was exhibited on November 3rd, at the meeting of the Linnean Society, by Mr. Lambert. It is from Oaxaca, in Mexico, in which country it is said to grow fifty feet high. A plant of this species, we understand, is in the Liverpool Botanic Garden.

CONDUCTOR.

ON HOT-WATER APPARATUS, as inserted in the *Cabinet*, page 49.—In the account which I sent you last month of a small Hot-Water Apparatus, I believe I omitted the name of the workman who constructed mine. It was made by G. Jarman, brazier and coppersmith, 49, Gracechurch-Street, London; and as he has had some experience in similar apparatus, and is in possession of all my

drawings, &c. he would probably execute every order better than a workman unacquainted with the principle, and to whom the plan was altogether new.— Upon nine weeks' experience, I can report most favourably of the apparatus. It will place the cultivation of orchideous epiphytes within the reach of any one who possesses a three-light melon pit; in fact, within the reach of every one who loves a garden sufficiently to devote a little personal attention to it. My thermometer ranges from 28 to 32 degrees above external air, and seldom varies 10 degrees in the night, and if fine need no attendance from nine P.M. till seven A.M. except a visit from myself about eleven P.M. to see that all is right. The extreme simplicity and success of the plan, induces me to trouble you with this remark, as I am anxious it should be generally known, being confident nothing more is necessary to its universal adoption, in houses or pits on a small scale, and it will probably be found not less efficient on a more extended one.—Your Obedient Servant,—C. C. B. *Cultivator of Cape Bulbs.*

SOUTH LONDON FLORICULTURAL SOCIETY.

The first general meeting and flower show of this society for the year 1836, took place at the Horns Tavern, Kensington, on Wednesday, April 14th. Notwithstanding the severity of the weather, the show of flowers was magnificent. Every table in the extensive ball-room was thickly studded with the most superb specimens, which reflected by the large pier glasses, rendered the display exceedingly brilliant. That singularly beautiful plant, the *Tropaeolum tricolorum*, attracted peculiar notice. This plant, to the great regret of the floral world, was lost many years ago at the Botanic Garden, Chelsea, and its restoration has created much pleasure. Another plant hitherto unknown to English florists, and which sprung accidentally among some mixed seeds, was presented by Mr. Redding, gardener to Mrs. Marryatt, of Wimbledon. Though not coming within the meaning of the phrase for which the prizes were awarded, namely, "The finest specimens," it was still considered such an acquisition as to call for an additional extra prize. They have named the stranger plant *Brugmansia sanguinea*, the flower being tipped at the edge with a blood colour. Amongst the prizes and specimens there was an abundance of azaleas, salvias, primulas, camellias, oxalis, magnolias, cyclamens, ericas, &c. Mr. Catleugh, of Chelsea, exhibited a splendid row of geraniums, consisting of all the best-known varieties. The cucumbers, from Mr. Conway, of Fulham, were much admired, being 17 inches long.

PRIZES AWARDED.—To Mr. Harding, of Sydenham, for the best pair of auriculas, being Page's "Champion," and Warris's "Blucher." To Mr. Ledgard, of Hammersmith, for the second best pair of auricles, being the "Lancashire Hero," and Hage's "Oldenburgh." To Mr. Dickson, of Acru-lane, Clapham, for the best seedling auricula. This seedling was so much admired that ten guineas were offered for it on the spot. Barnard's *Formosa*, a most superb flower, gained the polyanthus prize for Mr. Harding, of Sydenham. Mr. Lane, of Henington, Fulham, gained the prize for the six best hyacinths. Mr. Chandler, of Wandsworth-road, for the six second best; as also for the best collection of miscellaneous plants. Messrs. Young, of Epsom, for the second best collection of miscellaneous. Mr. Fairburn, of Clapham Rise, for the third best. Messrs. Young also obtained the prize for the best specimen plant. Mr. Chandler for the second best.

METROPOLITAN SOCIETY OF FLORISTS, &c.

SECOND SHOW, TULIPS, FOR MEMBERS ONLY, RED LION, HAMPTON, MAY 16th

1. Best twelve dissimilar blooms, four of each class, the Queen's plate, value ten guineas, and other prizes for the second and third pans at least. Entrance, 20s.

2. Best nine dissimilar blooms, three of each class, silver cups or plate, value £5. £4. £3. £2. and £1. Entrance 10s.

3. Best single blooms, feather and flamed in each class. Entrance, 2s. 6d.

4. Best Breeder of each class. Entrance, 1s.

Every member to enter and pay for the flowers intended to be shown on Tuesday, the 3d of May.

THIRD SHOW, ON TUESDAY, THE 24th OF MAY, VAUXHALL,

In honour of the Princess Victoria's birth-day.

1. Best Collection of orchideous plants, not less than twelve, a silver cup, and one or more other prizes.

2. Best collections of six dissimilar rhododendrons, two or more prizes.

3. Best collections of six hardy azaleas, two or more prizes.

4. Best collections of six greenhouse azaleas, ditto.

5. Best collections of six greenhouse plants, not azaleas, ditto.

6. Best collections of six calceolarias, ditto.

7. Best collections of six hardy plants of any kind, ditto.

8. Best collections of six geraniums, three or more prizes.

9. Best collections of six ericas, ditto.

10. Best collections of thirty heart's-ease, amateurs, ditto.

11. Best collections of one hundred heart's-ease, all classes, ditto.

12. Best collections of twelve tulips, one-third of each amateurs, six prizes.

13. Best collections of thirty-six tulips, all classes, three prizes.

14. Best collections of thirty-six varieties of cut flowers, not more than six in any one tribe, two or more prizes.

15. Best specimen plants, to be judged by skill in cultivation and beauty, three to five prizes.

16. Best specimen plants, to be judged by rarity and beauty, three to five prizes.

17. Best orchideous specimen, one or more prizes.

18. Best twenty sorts of roses, not garden varieties, a truss of each.

The Silver Cup, given in honour of the Princess Victoria's birth-day, will be given to the person who shall obtain the greatest number of prizes; and if two persons shall obtain equal number of prizes, then the greatest number of first prizes. Entrance—members, 2s. 6d. each class; non-members, 5s.

No person to be permitted to show for prizes, unless notice be given in writing to the secretary, or personally, at a meeting on or before Tuesday, the 17th May, that exhibition tickets may be forwarded, without which none can be admitted.

FOURTH SHOW, JUNE 16th or 23d.

So far as any or all the foregoing flowers can be exhibited in good order, the prizes and conditions to be the same. The following are additional.

1. Best twelve pinks, amateurs, six prizes.

2. Best collection of ditto, all classes, three prizes.

3. Best twelve ranunculuses, amateurs, six prizes.
4. Best collection, ditto, all classes, three prizes.
5. Best twelve sorts of China noisette, or other roses, not garden varieties, to be shown either in pots or single trusses of bloom, on one stalk, amateurs only, two prizes.
6. Best collection of ditto, all classes, two prizes.
7. Best twenty-four garden varieties, and not noisette, climbing, or China, to be shown in a single open bloom of each, as dahlias are exhibited, amateurs only, two prizes.

Best collection of ditto, all classes, two prizes. Entrance for each class—members, 2s. 6d.; non members, 5s.

No person to show, unless notice be given in writing, or personally, on or before the general meeting, 7th June.

FIFTH SHOW, JULY 20—CARNATIONS AND PICCOTEES—VAUXHALL.

Members only.

1. Best twelve dissimilar blooms, carnation, five or more prizes.
2. Best twelve dissimilar blooms, piccotees, white ground, five or more prizes.
3. Best twelve yellow or coloured grounds, one prize.
4. Best seedling that has not taken a prize before, and has been raised within two years, and not out, one prize. Entrance—5s. each stand; 2s. 6d. each seedling.

None to show, unless the flowers are entered and paid for, before or at the meeting, 5th July. Flowers received till one o'clock on the day of show.

The members will dine together in the Royal Box, at three o'clock, and be at liberty to wait the evening's gala.

SIXTH SHOW, AUGUST 11, VAUXHALL.

In honour of the Queen's Birth-day.

1. Best Collection of thirty-six plants of every kind, Silver Cup, and two or more other prizes.
2. Best collections of six cockseombs, two or more prizes.
3. Best collections of six balsams, ditto.
4. Best collections of six greenhouse plants, ditto.
5. Best specimens for skill and beauty, two to five prizes.
6. Best ditto for rarity and beauty, two to five prizes.
7. Best twelve dahlias, amateurs, growing under two hundred plants, and not placing any seedling in the stand.
8. Best twenty-four, all classes.
9. Best one hundred, exhibited in boxes, stands, or otherwise, provided by the grower, but not containing more than five rows in depth, and not more than two feet six inches from back to front, to preserve uniformity.
10. Best seedlings of 1835, self.
11. Best ditto, mottled, shaded, or striped.
12. Best ditto, of 1836, self.
13. Best ditto, mottled, shaded, or striped.
14. Best thirty-six varieties, in pots, all classes.

The dahlia prizes will be in number proportioned to the entries of each class.—Entry for each class of plants, and also for seedlings, dahlias—members

2s. 6d.; non-members, 5s. Entry for each class of dahlias—members, 5s.; non-members, 10s.

Every person must give notice of showing in writing, or personally, at or before the general meeting, 2nd of August, that exhibitors' tickets may be forwarded.

SEVENTH SHOW, SEPTEMBER 8th, Vauxhall.

Plants, as far as they can be shown in good order, the same as before.

Dahlias all as at the August show—prizes according to the number of entries.

Day of entry on or before the general meeting, 16th August.

EIGHTH AND LAST SHOW, SEPTEMBER 27th, SALFILL, NEAR WINDSOR.

* Prizes, plan, entry, &c. of dahlias as before, and entrance on or before the 6th of September.

LIST OF FLORICULTURAL AND HORTICULTURAL MEETINGS,

TO BE HELD IN MAY.

SHEFFIELD, *Wednesday, May 4th.*

WAKEFIELD, *Wednesday, 11th.*

HUDDESFIELD, *Thursday, 12th.*

LONDON HORTICULTURAL SOCIETY, to be held in the Gardens at Chiswick, *Saturday, 14th.*

METROPOLITAN SOCIETY, to be held at Hampton, *Monday 16th.*

CHELTENHAM, *Tuesday, 17th.*

ROYAL BERKSHIRE, at Wallingford, *Wednesday, 18th.*

SUSSEX, *Wednesday, 18th.*

MIDDLESEX, *Thursday, 19th.*

BATH, *Thursday, 19th.*

DORKING, (Surrey,) *Saturday, 21st.*

METROPOLITAN SOCIETY, *Tuesday, 24th.*

A CATALOGUE OF FINE PANSY CULTURES, RAISED FROM SEED,

AND CULTIVATED BY J. WATERSON, FAIRLEY.

<i>Red Spotted</i>	<i>Jan'br.</i>	<i>Sr H. Dava.</i>
Addison,	Lord Cochran,	Coniers,
Agandera,	Linnaeus,	Coscar,
Alerope,	Maculata Suprema,	Cur,
Alexander,	Maddock,	Utha,
Belina,	Mucosa,	Virgil,
Brabella,	Madon Pasta,	Viramia,
Cunning,	Marshall Ney,	Warren,
Cupid,	Miss Stephens,	Zephyrus,
Delicate,	Mrs. Stephens,	] <i>Purple Spotted.</i>
Dr. Hunter,	Mrs. Salmon,	
Duke of Hamilton,	Pindar,	Acantha,
Flaxman,	Pop,	Calypso,
Flora,	Poussin,	Captain Cook,
Ganymede,	Ramsay,	Dr. Chalmers,
Girard Dom,	Rembrandt,	Duke of Buccleugh,
George 4th,	Rascanna,	Duchess of Hamilton,
Guercino,	Salus,	Florida,
Guido,	Salvator Rosa,	Lord Althorpe,
Hogarth,	Shakespeare,	— Holland,
Hacker,	Shelair,	Tricks,

Sir Sidney Smith,
— William Wallace,
Sarah,
Smollet,
Stinson,
Tenneshill,
Vandyke,
William 4th,
Purple.

Augustus,
Barry,
Brougham,
Chaucer,
Dey of Algiers,
Dunbar,
Gray,
Hiram,
Rob Roy,
Spenser,
Swarran,
Yellow, edged, Spotted, &c.

Akenside,
Domenichino,
Epeus,
Fresnoy,
Havilah,
Holbein,
Midas,
Plato,
Sir W. Beechey,
White.

Artemis,
Fairy Queen,
Februa,
Hesperus,
Mary,
Sir P. Lely,
Rose edged and Mottled.

Adelaide,
Amaranthe,
Campbell,
Catalani,
Ciouro,
Comala,
Cornagio,
Crimora,
De Haem,
Deyden,
Earl Grey,

Europa,
Earl Grosvenor,
Fingal,
Handel,
Heath,
Helena,
Hercules,
Homer,
Howard,
Junthe,
Idulia,
Leda,
Lord Cathcart,
— Eldon,
— J. Russel,
Marquis of Douglas,
— of Stafford,
Maria Louisa,
Marshall Macdonald,
Melona,
Michael Angelo,
Moins,
Morna,
Milton,
Mrs. Siddons,
Napoleon,
Prince Poniatowsky,
Princess Charlotte,
R. A. Smith,
Raphael,
Rubens,
Sir G. Kneller,
— Jos. Reynolds,
— Walter Scott,
Sparkling Baby,
Sulmalla,
Thomson,
Thornhill,
Timanthes,
Titian,
Waterloo,
Wellington,
West,
Wilkie.

Rosey.

Burnet,
Captain Parry,
Caroline,
Falconer,
Ferguson,
Haydon,

Holloway,
Moore,
Naverino,
Rose Magnificent,
— De Perse,
— Stamboul,
— Superb,
— Unique,
Victoria,

Purple edged and Mottled.

Apelles,
Armata,
Blucher,
Bruce,
Burns,
Byron,
Claude Lorraine,
Cowper,
Davey,
Deiopea,
Dr. Young,
Duc de Reichstadt,
Esther,
Fillan,
Fuseli,
Gavin Douglas,
Garrick,
Gainsborough,
Gloria Florum,
Goldsmith,
Henry Kirke White,
Henning,
Hooker,
Home,
Juno,
La Perouse,
Lady Susan Hamilton,
Madam Mere,
Raimback,
Ryno,
Sir J. Lawrence,
— H. Raeburn,
— R. Wilson,
Sterne,
Tam O'Shanter,
Virginus,
Wilson,
Weber,
Westall,

Mr. Waterton, of Paisley, Scotland, has been the most successful raiser of Seedling Ranunculuses that I have known, I, therefore, with pleasure send you this list of his seedlings for insertion in the *Cabinet*, that the readers may have some knowledge of what we possess of this esteemed flower, in this part of the country.

ST. PATRICK.

Edinburgh, Feb. 12th, 1838.

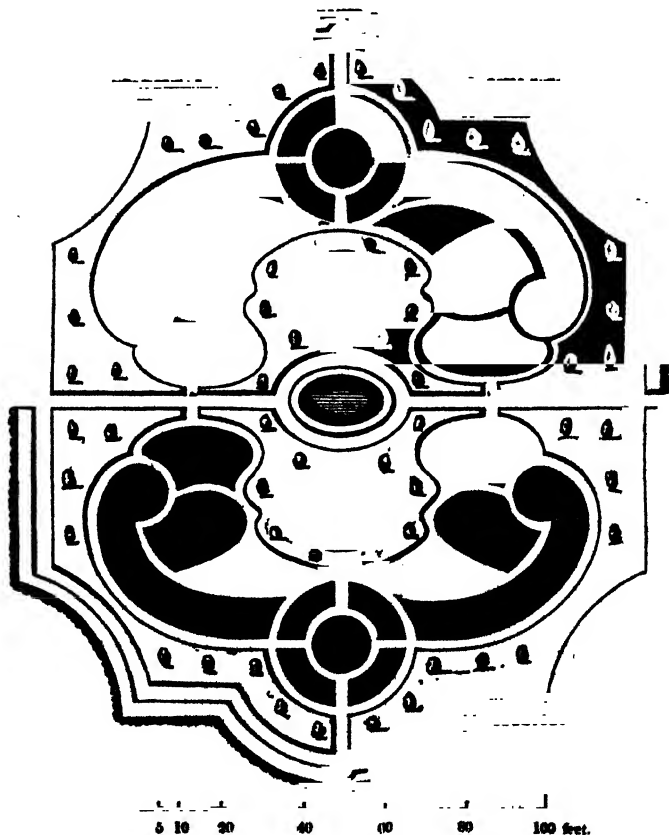
ORIGINAL COMMUNICATION.

ARTICLE VII.—DESIGN FOR FLOWER-GARDENS, No. IV, Design 5th.

Communicated by Amicus.

THE Plan represents a Flower-Garden, with gravel walks, box, or other edging, and some grass introduced upon which dwarf ornamental flowering shrubs may be planted. The centre is occupied by a small bason, for gold and silver fish.

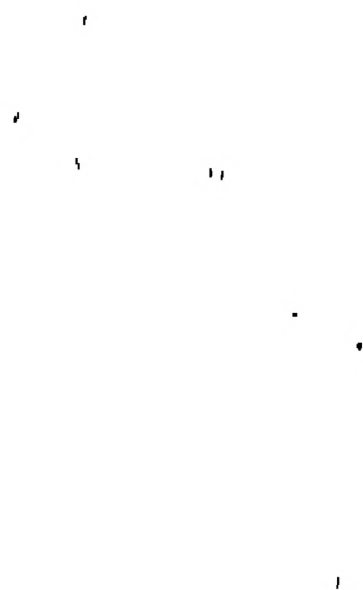
Fig. 10.

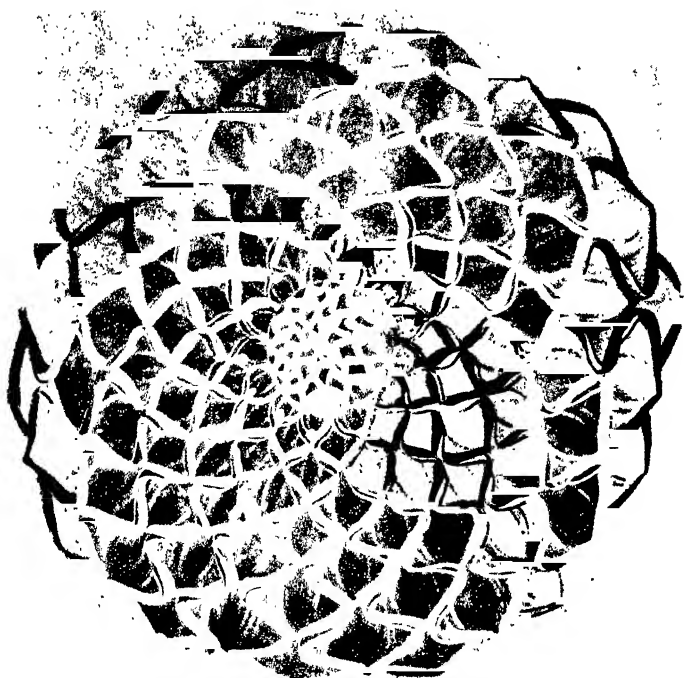


REMARKS.

ON THE PINK.—The stem should be strong, elastic, and erect, and not less than twelve inches high. The flower should not be less than two inches and a half in diameter, the petals should be large, broad, and substantial, and free from large, coarse, deep notches, or indentures; in short, they approach nearest to perfection when they are rose-leaved, or without any fringe at all. The broad end of the petals should be perfectly white and distinct from the eye, unless it be a laced pink, which should be bold, clear, and distinct, leaving a considerable portion of white in the centre, perfectly free from any tinge or spot. The eye should consist of a bright, rich, dark crimson, or purple, resembling velvet; but the nearer it approaches black, the more it is esteemed; its proportion should be about equal to that of the white, that it may neither appear too large nor too small.—*A. B.*

ON NEAPOLITAN VIOLETS.—Neapolitan Violets may be removed from the frames to the open borders. This fragrant flower is often in great request; and as many feel desirous to have the duration of its flowering prolonged throughout the winter, we feel much pleasure in giving insertion to the following excellent directions, kindly communicated to us by Mr. J. W. Thomson, gardener to Alexander Baring, Esq., Grange Park. Early in May the plants are taken from the frames, the whole of the earth being shaken from the roots. The largest are divided into three plants, the smaller into two; they are then planted in beds, four feet wide, in rows, one foot apart, and twelve inches in the rows. An east or west border should be chosen, and previously to planting be well dug, and highly manured with well decomposed animal manure. If the summer prove dry, they will require to be frequently watered; they should remain in the beds till the middle or latter end of September; they should then be taken up with a portion of soil adhering to the roots, and potted singly into pots (32's) filled with a compost consisting of equal parts of sandy loam, well-decomposed leaves, and rich animal manure, or bone-dust, but the latter is preferable. When potted the plants should be well watered, and placed in a shady situation for a fortnight. About the middle of October the plants are plunged into a pit filled with old tan or leaves, and when so placed the plants should not be more than three inches from the glass; this is of great importance, for if the pots be plunged deeper into the beds, the plants are very liable to damp off in the winter months, and during this period they require but little or no water. Air should be freely admitted at all times, except in frosty or wet weather; for if wetted by rain, they would probably damp off. Mats should be used to protect them from frosts, and where flues are employed, the temperature should not exceed 40° or 45° of Fahrenheit's thermometer. The plants require to be frequently looked over, and decayed leaves removed; and during summer the runners should be taken off, as they tend to weaken the plant.





Harris's
Cane of Perfection.

BATH ROYAL HORTICULTURAL AND FLORAL SOCIETY.—The third evening meeting of this society, for Horticultural and Floral discussion, took place on Tuesday, March 1st, at Collings library, Captain Marsh in the chair; the proceedings were in the highest degree interesting. The chairman read a valuable paper upon an improved method of cultivating celery R. Godfrey Esq., also read an elaborate, comprehensive, and very entertaining paper on the auricula, embracing its varieties, mode of culture, &c. &c., which, though it extended to nearly half an hour, commanded the most strict attention, and elicited the applause of all present at its close. Mr. J. Salter, with his usual liberality, sent a numerous and splendid collection of hyacinths, early tulips, camellias, and other plants, which were greatly admired. R. Godfrey Esq., sent a beautiful erica; and a very fine seedling geranium was sent by B. Batsford Esq., of Weston Lane.

REFERENCE TO THE EMBELLISHMENT.

Harris's Acme of Perfection Dahlia.—A Seedling of 1835, raised by Mr. John Harris, Florist, Upway, Dorsetshire, who has been very successful in raising many other superior flowers.

FLORICULTURAL CALENDAR FOR MAY.

Plant Stove.—Very little fire-heat will now be required, only applying it in cold weather. The plants will progressively require an increase of air and water. If any want an increase of pot-room, it should be attended to as early as possible; otherwise, if not watered frequently, the foliage or flowers will be liable to suffer, turn brown, or fall off the plant. Keep the plants free from decayed leaves, moss, &c. Frequently stir the surface of the soil. When any casual irregularities in form occur, prune or tie the shoots as required. It is a good time for propagating by cuttings, suckers, seeds, &c. placing them in moist heat.

Tender or Stove Annuals.—When it is desired to have some plants to bloom late in autumn, as Balsams, Cockscombs, Broccollias, &c. seeds should now be sown, and the plants be potted off into small sized pots as soon as they are large enough, using a rich soil.

Greenhouse.—During the early part of May, a few frosty nights generally occur, in consequence of which, it is advisable not to take out the general stock of plants before the middle of the month, or even in cold situations, before the 25th. Whilst the plants, however, remain in the greenhouse, let them have all the air that can be given during the day, and at night, if no appearance of frost. Particular attention will now be required to afford an ample supply of water to free-growing kinds of plants. Frequently syringe them over the tops at evening, just before sun-set. If any of the plants be attacked with the

green fly, or any other similar insects, apply a sprinkling of tobacco-water, diluted with water, by adding to one quart of the liquid five of water; in applying which to the plants, syringe them under, as well as on the upper surface of the leaves: a repetition will rarely be required. This mode of destroying the insects is far preferable to fumigation, no injury being sustained by it, even if applied in a pure state. The liquid can be obtained of tobacco-nists at 10d. or 1s. per gallon. Inarching Orange or Lemon trees may still be performed. It is a good time for increasing plants by cuttings, striking in moist heat. Greenhouse annuals—as *Salpiglossises*, *Globe Amaranthuses*, *Balsams*, &c.—should be encouraged by a little warmth, and shifted into larger pots, early in the month; so that the plants may make a show, to succeed the removal of the general collection of greenhouse plants. Cuttings or suckers of *Chrysanthemums* should now be taken off, if not done before.—See Vol. I. pages 73 and 121; and Vol. II. pages 83.

Flower-Garden.—Continue to protect beds of *Hyacinths*, *Tulips*, &c. *Carnations* in pots should be encouraged by manure water, &c. in order to grow them vigorously: care in striking will be required. By the middle of the month, half hardy annuals, as *China Asters*, *Mari-golds*, &c.—may be planted out in the open borders. Some of the best kinds may be potted, as done to the more tender sorts. Many kinds of greenhouse plants—as *Petunia*, *Salpiglossises*, *Salvias*, *Fuchsias*, *Heliotropes*, &c.—should now be planted out in the open border. *Dahlias*, that have been forwarded in pots, frames, &c. may be planted out towards the end of the month. Seedlings may be pricked out in a warm situation, having a deep, fresh, rich soil. When *Stocks*, *Mignonette*, *China Asters*, &c. are wished to bloom late in the year, seeds may now be sown, either under frame, or on a warm border. Slips of *Double Wallflowers* should now be put in under a hand-glass. Seeds of biennials—as *Sweet Williams*, *Scabious*, *Campions*, &c.—should now be sown. *Tube-roses*, for late flowering, should now be planted, either in pots or warm borders.

Auricles.—(See page 47, Vol. I.)

Carnations.—(See page 23, Vol. I.)

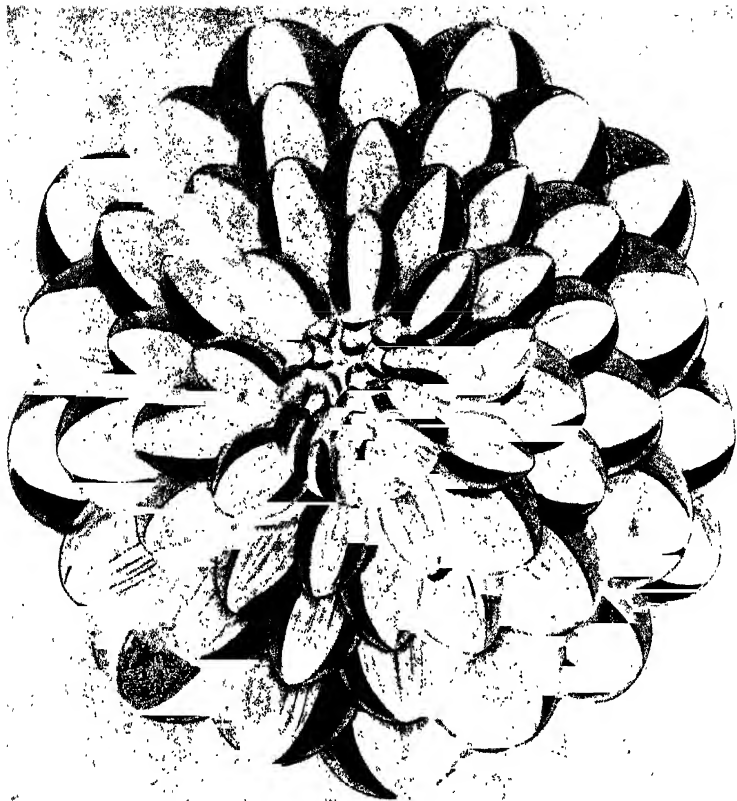
China Rose Cuttings.—(See page 48, Vol. I.)

Ranunculuses.—(See page 25, Vol. I.)

Rose Trees.—(See page 23, Vol. I.)

Tulips.—(See page 24, Vol. I.)

Violets.—(See page 48 and 72, Vol. I.)



Harris's
Inimitable Dahlia

THE FLORICULTURAL CABINET,

JUNE 1st, 1836.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.—ON SNAILS, &c.—By MARIA.

"JUDENIS," of Canonbury, proposes that oil should be put into the pans to prevent snails from reaching the flower-pots; assuredly oil applied to the bodies of those insects that breathe through their bodies, such as wasps, hornets, &c. are immediately killed by it, but then it must be in a liquid state, whereas oil when exposed to cold becomes congealed, and then, I should think, the snails might crawl over it uninjured, besides which, it would be expensive in a large collection. I have tried with good effect the trimmings of horses' heels and manes cut small, strewed round the root, and if dug in with the mould all the better, for then the slugs will be prevented from attacking the bulb or stem under the earth; the prickliness of the horse-hair, and its inclination to adhere to the moist coat of the insects is so hurtful that I here found it quite effectual. Any groom or coachman will save a large quantity of these trimmings in a short time, and it costs nothing, makes no moss, and takes little time in the application. I have found a ring of tar effectual in cleaning a Daphne of Ants, they had congregated in such numbers on a handsome shrub as to threaten serious injury, and I had a ring of tar placed around it two inches from the stem; in a day or two all the ants died, not being able to pass the barrier to return to their nests. But, as this will only do for an occasional plant, I would recommend a simple plan, adopted by my gardener, and which has nearly cleared the beds and lawns of a profusion of these troublesome insects. He makes a hole several inches deep with a pointed stake exactly in their track wheresoever he observes one; into this pit they fall headlong, and the sides being of soft earth, and perpendicular, they fall back and die by hundreds, or he kills them by again putting in the stake. The gardener assures me he shall eradicate the whole colony in another season.

Clifton, 1836.

ARTICLE II.

ON THE CULTURE OF GINGER, ZINZIBER OFFICINALLIS.

BY MR. HENRY MARKEHAM, LINNÆUS-STREET, HULL.

THIS plant is a native of the East Indies, requiring the heat of the stove. It grows very freely in a mixture of light rich loam, peat, and river sand, care must be taken to give a good drainage at the time of potting.

During the time the roots are torpid, very little or no water should be given. When they are in full growth, a good supply is requisite to keep them in a healthful growing state.

They are easily increased by division of the roots during the time they are torpid, nothing further is required than to pot the divided parts into such pots as are suitable to their size, and treat them precisely as recommended for the old plants. In January or February, when the roots are dormant, is the most proper time for taking up. After having been clean picked and well washed, and exposed to the sun till sufficiently dry, it is fit for use.

February, 1836.

ARTICLE III.

ON THE CULTURE OF THE NEAPOLITAN VIOLET.

BY A PRACTICAL LADY AMATEUR.

IN the *Cabinet* for March last, "C. S." inquires "what soil and management best suits the Russian and Neapolitan Violets, to secure *profuse* bloom?" I have both these Violets. They are planted in a *loamy soil*, and blow *abundantly*, with but *few* leaves. The Russian Violet this last season in a *sunny* spot bloomed from the first week in October to the middle of March. The Neapolitan Violet in the *shade* (that is with only the morning sun) in a border sheltered by lime-trees came into bloom the middle of February, and continues blooming. I *had* the Neapolitan Violet planted in a border to the south, but it did not thrive, and therefore removed it to its present situation, where it flourishes. When the frosts begin, I give the Neapolitan Violet the protection of a hand-glass; or of a frame made in the shape of a hand-glass, covered with oiled paper, and continue it till they are over; taking it off, a short time, every mild day. I have tried the Neapolitan Violet in a pot, wishing to have it in the drawing-room during winter, but I could not succeed with it, and was obliged when May approached to plant it in the border again, without its having bloomed:

Beds. April 19th, 1836.

ARTICLE IV.—ON THE TREATMENT OF *LONICERA FLEXUOSA*,*So as to cause it to bloom profusely, and of the Russian Violet.*

BY MARIA.

BEING highly gratified with the *Floricultural Cabinet*, and having derived so much benefit from that publication, I consider it incumbent on me to impart all the information in my power through the medium of that excellent work. I therefore beg to inform "C. S." of Candover, that I have seen a *Lonicera flexuosa* that had been cut back to keep it about six feet high, which was beautiful from the profusion of blossom mixed with the dark green leaf, and of such *close* growth, that not a *particle* of wall was visible; it is naturally wild and straggling, and will not flower so well as any other honey-suckle, unless kept in order with the pruning-knife. I do not think the Russian Violet likes the confinement of a pot, it takes some time also to get reconciled to the ground before it will blow *well*. I have this year discovered that the birds nip off the early buds, and I have been preparing some small nets for their preservation, with which my gardener is much delighted; I happened to have some coarse scarlet yarn. and being in haste to guard my violets, I recommenced my work, and find that it happens to be particularly effectual as the birds will not approach any thing that is red. Perhaps your correspondent may like to learn the size of my nets. I begin with *one* stitch and on that I net two stitches, and I continue to widen at the *end* of each row till I come to 30 stitches, and then at the end of every row I narrow, that is, take two stitches together, till I come to one stitch, when a square is produced which can easily be fastened to the ground with sticks, and to the wall with nails.

ARTICLE V.—METHOD OF OBTAINING DWARF PLANTS OF THE CHINESE CHRYSANTHEMUM.—BY J. K.

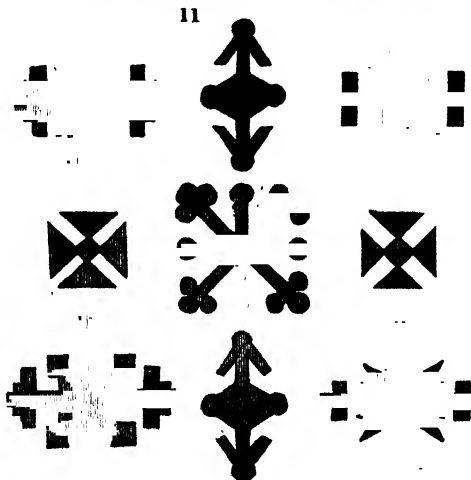
THE following easy method of obtaining dwarf Plants of the above beautiful autumn flower I have practised with success this season, and I believe it is not generally known. In the month of September, when the plants have begun to show the flower-bud, take the plants from which you want to have dwarf ones, and tie some moss and mould round the stalk, about a foot or half a foot (according to the height of the plant you desire) from the head of the plant, tie it round tight, and in a fortnight roots will strike to the moss, when it may be taken off and potted, by this means you will have a pretty dwarf Plant at once, without much trouble: I have this season several of the tall growing kinds in pots about a foot high, looking extremely beautiful.

ARTICLE VI.—ON FLOWER-BEDS, BASKETS, &c.

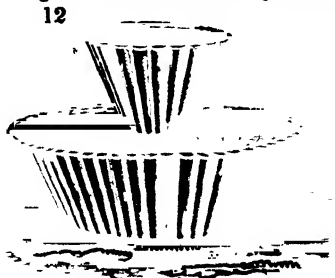
BY GOOSEBERRY.

HEREWITH I send some sketches of flower beds, &c. the patterns of some I have in my own garden.

I have some beds of Fig. 11, in a Chinese garden, which they suit extremely well, and produce a very pleasing effect.



Many of the correspondents of the *Cabinet*, having asked how can they have a succession of flowers in a small space, I recommend for their adoption the Chinese method of growing plants, (that bloom at the same time), in boxes which are made the shape fixed upon, and sunk in the earth with fresh ones as the flowers die away. The Rustic basket, Fig. 12, when filled with plants has a remarkably



pretty effect, and is well suited to a confined space. The sides are made of fir trees split, and either left with the bark on, or painted, filled with earth, and planted with flowers.

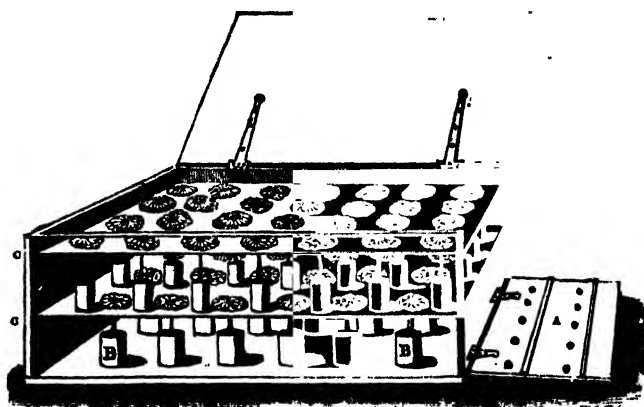
ARTICLE VII.

DESCRIPTION OF A BOX FOR CONVEYING FLOWERS IN.

BY E. T. E.

IN compliance with the wishes of "J. K." I have attempted to demonstrate a box (Fig. 13) for the purpose to which none I have seen are superior, the flowers at the end of a long journey having the appearance of only been just gathered.

13



The box is of deal and can be made by any village carpenter. (A) is one of the sides with hinges, in order to facilitate the arrangement of the flowers. (B B) are small boxes of tin filled with moist sand to receive the stalks. (C C) are slides which are let down level with the tins when arranging the flowers, and are supported by the side (A) when closed; one side should have a few small holes in it, to let in a little air, but not a draught. This mode of conveyance has given general satisfaction to those acquainted with it.

ARTICLE VII.—GLEANINGS FROM OLD AUTHORS.

BY TULIP, No. 3.—*From Reas Flora*, 1676.

As the Tulip season is advancing, perhaps, the following extracts may be amusing to some of your curious readers who are not acquainted with the work.

"The division of Tulips, according to Gerrard Parkinson, Clusius, and Ferrarius, is into three sorts, *Præcoces*, *Medias*, and *Serotinas*;

early, middle, and late flowering Tulips, whereas, there are but two primary distinct kinds, *Præcoces* and *Serotinas*."

The following is the manner of his description of the named Tulip flowers, and of which there are about 179, besides those he does not describe.

viz. <i>Præcoces</i>	36	} 179 I have selected two only, both of which I have.
<i>Medias</i>	136	
<i>Serotinas</i>	9	

"Semper Augustus, heretofore of much esteem, hath a flower not very large, but well veined and striped with deep crimson and pale yellow, the bottom and Tamis dark violet purple."

* "Royal Vesta, or Nonpare, is a better and more constant flower than the last (viz, Vesta); the colours are carnation, crimson, and white, when the flower makes well, the bottom is white and the tamis blue."

"For various colours Tulips most excel,
And some Anemonies do please as well;
Ranunculus in richest scarlets shine,
Auricula and Bears-ears may with these in beauty join.
But yet if ask and have were in my power,
Next to the Rose give me the July-flower."

The above above few lines are written at the close of the article on July-flowers, and it appears at that period the supply for the growers were brought from Holland, Flanders and other parts of the Netherlands, he inserts a list of three hundred and sixty by name; he says, "multitudes of these (seedlings) are often brought over to London, and there sold at mean rates to gardeners who sell them again to others, who delight in flowers commonly for 12 pence a layer; but most of these mercenary fellows about London are very deceitful, and whoever trusts is sure to be deceived, as I myself have often been, even by such of them as I had by many benefits obliged."

"I have heard but of very few good flowers that have been raised of seeds by any in England."

ARTICLE VIII.—ON THE CULTURE OF BLETIA TANKERVILLIÆ.

BY MR. HENRY MARKHAM, LINNÆUS-STREET, HULL.

IN reading over your *Floricultural Cabinet*, I find J. R. W., wishful, that some correspondent of your's would give him some information, how to treat the *Bletia Tankervilliæ*, so as to cause it to produce its singular and splendid flowers. I therefore send you a few remarks on the culture of that plant.

It is very easy of culture, and will flower freely if potted in, a soil composed of equal parts of light sandy loam, peat, and river

sand. Let the pots be plunged up to the rim in a bark bed, or other brisk heat, during the time the roots are in a growing state, and give a good supply of water.

When out of flower, and the roots become dormant, take up the pots and place them in a shady and dry situation; allow the soil to become dry, or nearly so, until they begin to grow again; as soon as this is observed, repot them, and plunge as before directed, and they will flower fine.

ARTICLE IX.—ON INARCHING AND LAYING STOVE, GREENHOUSE, AND OTHER CURIOUS OR RARE PLANTS.

BY A FOREMAN OF A LONDON NURSERY.

THERE are many of the most curious and splendid flowering stove, greenhouse, and hardy shrubs, which are only to be propagated but by the methods of either Inarching or Laying them, or if they can be struck from cuttings they seldom grow in a healthy condition afterwards. But a weakly growing species inserted upon the stock of a free growing kind, will cause it to bloom far more profusely and vigorously. An additional advantage too is afforded, by being enabled to obtain a plant of considerable size in a short time. I have therefore, drawn up some practical observations upon the method which I have pursued most successfully for twelve years.

Inarching is a species of grafting differing from it in these particulars, that whereas in grafting, the scion is at once totally separated from its parent plant, and the head of the stock is cut clear off before the splicing takes place; here, on the contrary, neither the scion is separated from its parent, nor the head of the stock cut away, until the union becomes so far complete that the first is unnecessary, and the latter injurious. It is in consequence much preferable to the common grafting, for evergreens in particular; it is principally practised as the best means of multiplying all the double varieties of Camellia and plants of similar habits; because their strong leaves, if only for a few days deprived of their regular support, by being cut clear from the mother stock, if not covered closely with a glass will be certain to wither and fall off; after which, there will be but very slender chance of the scion's completing an union: it is performed as follows:—

Having provided a stock, which should always be some of the coarser, free kinds, of the same genus of plants, and nearly of the same diameter as the shoot which is intended for inarching; cut a thin slip, from two to three inches long, and about one third or something better of the whole thickness, smoothly off from each of them,

in the clearest part of the stem with a small sharp knife ; (a most necessary instrument for this business,) the bark of each must then be fitted together in the most exact manner, at least on one side, and tied perfectly tight with good matting ; they must be clayed in the same manner as grafts ; and, as being within doors in a warm house will occasion the clay to become over dry, and liable to crack, they should, at least in dry weather, receive two or three times a week, some water from the rose of a water pot, or by means of a syringe, to preserve it in a proper moist state, observing to do it in the evening lest the leaves should get scorched by the rays of the sun : a little moss tied neatly round each ball of clay will prevent the water being so frequently necessary : which is in my opinion very desirable. Eight or ten weeks will in general be found sufficient time for them to unite ; at all events, by that time, I think, they may be partially separated from the parent plant by cutting the in-arched shoots better than half way through ; and if, on trial, they are found to be united, and bear that operation well, they may in a few days afterwards be entirely cut off and placed in a shady part of the house, where they must be kept moderately syringed as before, and some additional shade given according to the state of the weather for two or three weeks ; during which time, they may be untied, and the top of the stock cut off in a neat manner ; and also any unnecessary part of the bottom of the scion that may remain : let a little clay be again applied, that these fresh wounds may have sufficient time to become properly healed, which will take place in a few weeks. In this manner have I succeeded with *Myrtus Pimento*, and other plants allied to it, which are particularly difficult to strike or propagate, by any other means, on the common myrtle with tolerable success ; and also many other plants of the same description upon their kind.

In laying, choice should be made of the young tender shoots of the present year, the soft bark of which will sooner form a callosity, and produce roots, than that of any of the preceding years growth. It is particularly necessary to observe, whether the plant intended to be layed is of a brittle nature or not ; for if it is, it will be necessary that the shoots be pegged gently down to the surface previous to laying, and thus left, until their tops naturally acquire a perpendicular direction, which they will do in a few days ; without this precaution it will be extremely difficult to tongue them without cracking, or breaking them off ; but if treated in this manner, the most brittle may be layed without danger.

By tonguing is meant, the operation of cutting a small longitudinal scalp about half an inch in length, on the inner side of the heel

or bend which is to inserted into the earth; about one-third of it should be cut off in a transverse direction; it being so placed, that the transverse cut may be immediately on or below the joint; but by no means is the whole of it to be cut away, as practised by some, it being the part which in most instances produces the first fibres. Having the layer thus prepared, the earth must be opened with the hand about three or four inches deep, and in the direction of the shoot, into which opening, it would be advisable to put a little fresh loam or sand for the immediate reception of the layer; which should be fixed therein at least three inches under the surface, the tongue should be gently twisted sideways so as to prevent its resting within the heel or bend, and the mould immediately closed tight over it; as many layers as are wanted being thus made, let the whole have a moderate watering to settle the mould, and be set or plunged in a good growing heat; as it is of considerable importance to keep the parent plant in a free thriving state.

There are many plants which produce roots so freely, that should a branch even touch the surface of the ground, they strike almost immediately; these every gardener will soon become acquainted with by their natural efforts, and therefore, will find it sufficient for their increase merely to insert them in the mould: noting however, that a slight twist on the part inserted will considerably promote their rooting.

It is a conclusion drawn from several experiments, that the layer, which is inserted to a proper depth, roots sooner and better than that which is layed nearer the surface; the self-evident reason of which is, that the deeper they are the air is better excluded, and there is a more regular degree of moisture for the nourishment of the young fibres, when they make their appearance. I must also observe, that no part of the shoot should on any pretence be covered with the mould, except that which is meant to produce roots, as the covering of the whole renders it extremely liable to rot: therefore, if any particularly tender plant should happen to be thus treated, it would evidently endanger the whole stool. This may seem an unnecessary observation to some, but I can assure such, that I have seen layers made by people, who thought themselves extremely clever, where none of the parent stool were left in sight, except the tops of each individual layer: what was the consequence? in a few months, one half at least of the stools were without the least spark of life remaining; and of the rest which were so fortunate as to survive, perhaps not one-tenth of the shoots layed, produced plants.

ARTICLE X.—A FEW REMARKS ON THE DAHLIA.

BY A STAR IN THE EAST.

THE Dahlia, although one of the most magnificent flowers cultivated, is as much, or more, subject to variableness and uncertainty than any other flower we have; and amongst the best varieties grown, there is not one upon which reliance can be placed.

In one garden, we observe some particular sort blooming in the greatest perfection, whilst in another we see the very same kind having nothing but imperfect, even single blossoms; and thus it is we find the flower spoken of in the highest terms by some persons, whilst others discard it as being worthless. This has frequently occurred, and I would mention the names of some individuals who have done so, and who are experienced growers to a great extent, and well know the properties constituting a good flower; such as Messrs. Brown, Widnall, Squibb, Brewer, Harrison, Levick, &c. &c. They have, even when grown the first season, discarded such flowers as Widnall's Granta, Douglas's Criterion, Aldam's Superb Yellow, Lady Fordwich, Harrison's Unique, Metropolitan Perfection, and many others of equal merit; but when subsequently seen by them in the collections of other growers, their properties have been acknowledged to be of the very first rate quality.

With regard to the opinions advanced on the qualifications required to form a good flower, they are almost as endless in variety as the Dahlia itself, for every grower has his own opinion. However, it must be generally admitted that *form* must stand *first*, colour next, and size last. In my opinion, the rules laid down in a former number of the *Cabinet* is a correct criterion, by which judges of the flowers ought to be governed. I have many times seen instances at the different Dahlia exhibitions I have attended, where the first prize was awarded to a stand of flowers, merely because it contained the sole merit of having larger flowers than its rivals, and far superior formed flowers, but less in size, come in for a second or a third prize. I have seen also, that, in the prizes of the different classes, the same sort of arrangement has been made, and Wilmot's Superb has been placed first, whilst Springfield Rival comes in as a fourth, although the bloom was perfection itself in form and colour. In fact, I have sometimes concluded, that in the opinion of some, it mattered not how ugly the flower might be, even if disfigured with an eye, it was sure to gain a prize if it were but sufficiently large. I venture to mention for the guide of those growing large flowers, the societies at Lynn, Maidstone, Hertford, and Wakefield. If one of the commit-

tee, or the secretary of a society would take the trouble to attend the next Dahlia exhibition of the Metropolitan Society of Florists and Amateurs on August 11, or September 8th, he might then have a good idea of deservedly awarding prizes. Or even take the rules I have before alluded to as a criterion. We should not then see such monstrous 'broomhead' flowers, utterly void of good form, taking the first, or even any prize at all, in an exhibition! The stands would no longer be disgraced with the broomhead size, and more unique in form would be substituted in lieu thereof.

It is surprising to observe the different constitutions of the Dahlia, some kinds produce the most perfect blooms when almost impoverished, when on the other hand, if they are grown luxuriantly, all the blooms come with an eye, or otherwise imperfect. Whereas some kinds if not grown in fresh good soil, produce small half double blooms, and during the whole season, not a good bloom, from the plant so grown, can be produced. The season and situation, likewise, have a great effect upon some of the kinds, as well as extensive propagation. This was the case with the Newick Rival last season, to the disappointment and vexation of many; which Messrs. Young and Penny so extensively propagated, and scarcely a single plant produced a bloom that might be called good, only with the exception of the first few cuttings taken off before the parent root was too much exhausted; and it is to be feared some of our highly described flowers will disappoint several, merely because they have been so much propagated. Persons raising seedling Dahlias, should not dispose of them until they possess a sufficient quantity of roots of each, so that only a few will be required from each individual root. I am persuaded if this method was adopted, our new flowers would answer more to the description given of them in the catalogues.

The greatest alteration generally takes place with seedlings. Some kinds when grown in the seed-beds in poor soils appear very beautiful, but, when propagated the following season and bloomed, they prove to be every thing but perfect and good, and disappoint the expectation previously formed of them. I have seen instances where the raiser of seedlings, plants them out with all the care he takes with his general collection, in fresh rich soil, &c., thinking, probably, that if they proved good with that treatment, he might rely upon their appearing so ever afterwards—but in this, disappointment generally occurs, for when the situation is changed, and numbers of plants are dispersed amongst "The Fancy," some may produce fine good flowers, whilst others are utterly worthless. The most sure way of

judging of the merits of a seedling is, to grow it two years in situations as opposite to each other as possible. If this were practised more generally, disappointment, which leads people to think that they are imposed upon, would not be so prevalent, as is the case at present.

Should the Editor think well to give the above rambling observations insertion in the *Cabinet*, I shall feel obliged. My next paper shall contain a few observations upon the Classing of Dahlias, and remarks upon those now circulated throughout the country, under so many different names, &c.

ARTICLE XI.—COLLECTANEA.

BY J. K.

PLANT FROM MADAGASCAR.—M. B. Delessert, has presented to the French Academy of Sciences, a curious plant from Madagascar, sent to him by M. Gondot, now travelling for the French Museum. It belongs to the Naidæ, and was first discovered by Du Petit Trouns, who gave it the name of *Auvivender Australis*. Its leaves are supported by long stalks, and are destitute of parenchyma which gives them the appearance of lace; they are half a foot long, and a quarter of a foot wide; on each side of the principal nerve are five parallel nerves, crossed at right angles by a multitude of smaller nerves. This plant grows in the Bay of Diego Soorey, in the water, and its roots are nourishing and agreeable to the palate.—*Athenæum*.

BATH ROYAL HORTICULTURAL SOCIETY.—The second evening meeting of this Society for the purposes of Horticultural and Floral discussion, took place on Tuesday, February 2nd., at Collings Library, and was well attended—S. Barrow Esq., in the chair. H. St. John Maule, Esq., read a paper by Mr. Salter, who was absent from illness, on the best means of growing the *Camellia*; papers on the Melon and Potatoe were also read by other members. Beautiful specimens of Orange trees in fruit, and Persian *Cyclamens*, *Hya-cinths*, and *Camellia*, were sent to this meeting by Mr. J. Salter, Kensington Nursery, and were much admired.

The exhibitions of the Bath Royal Horticultural and Floral Society for 1836, are fixed for the 23rd of June, the 21st. of July, and the 15th of September.

The following article on Striking Cuttings without the aid of glass, was read at a meeting of the Horticultural Society of London, on the 19th of August 1834, transmitted to them by Mr. W. Phelps, of Corsham, Wilts:—"Necessity is said to be the mother of invention, which I think will be exemplified by the following statement. Last

summer I had a great desire to strike cuttings of pink, carnation, Mule Pink, *Viola tricolor*, *Oenothera* a Mediterranean Heath, Gum Cistus, *Alaternus*, *Pyracantha*, and other flowers and shrubs, but having no glass, and it not being convenient to purchase one, I prepared a bed 15 feet long and three feet wide, with soil which I considered best for each peculiar sort, I prepared the cuttings in the usual way, just the same as I should for hand-glasses, and covered them with *wooden shutters* which I had by me. 3 feet square and three quarters of an inch thick, placed on a *brick* at each corner, which raised the *shutters* between 2 and 3 inches above the *cuttings*, I watered the cuttings as soon as they were planted, kept them constantly shaded by the shutters when the sun shone, kept them off on rainy days; and always at night, watered them every evening in dry weather, the consequence was that I never before had such good luck with hand-glasses or any other method. I am pursuing the same plan now, and any person is welcome to see how successful I continue to be in the adoption of this plan. It is probable that it may not be new to some persons, but to those circumstanced as I am, it may be acceptable, as, I believe this simple manner of striking cuttings of shrubs and flowers is not generally known. W. P.

At the Medico-Botanical Society on Tuesday, Dr. Morries, made some observations on opium, *digitales*, *conium*, and *hyoscyamus*, and exhibited specimens of oils obtained from the latter plants. The empyrenumatic oil of *hyoscyamus* is of a light yellow, highly volatile, and possesses a most powerful penetrating virose odour, which is readily perceptible at some distance, even when the bottle is closed. It is nearly as rapidly fatal as prussic acid, eight or nine drops will destroy life in one hour and a half.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *CAMELLIA JAPONICA*, VAR. *DONCKELAERI*, Donckelaer's.—This new and singular flowery variety has bloomed in the collection of Mr. Lowe, nurseryman, Clapton, near London. The flower is semidouble, the petals expanding prettily. The colour is a fine deep rosy-red, blotched, in a very striking manner, with white. It is a very desirable variety. Class, *Monadelphia*; Order, *Monogynia*. Natural Order, *Ternstroemiaceæ*. *Camellia* in compliment to G. J. Camel, a Jesuit.

2. *CRATEGUS ORIENTALIS*, Oriental Hawthorn. Synonym, *Mespilus orientalis*. This species is from Crimea, and is now growing in the grounds of the London Horticultural Society. The tree grows in a very compact manner. The flowers are white, very sweet, and appear in spring. The fruit produces a very pretty appearance, being of a large size, and of a fine deep purplish-red colour. It is a desirable tree for the pleasure ground. Icosandria, Pentagynia. *Roraceæ*, *Pomaceæ*. *Crategus*, from *Kratos*, strength.

3. *CRATEGUS MAROCCANA*, Morocco Hawthorn. Another pleasing species growing in the garden of the London Horticultural Society. It is a native of Barbary and Palestine. The flowers are white, succeeded by largish berries of a fine light scarlet colour.

4. *DENDROBIUM MONILIFORME*, Necklace formed, (*Mag. of Botany*.) Synonym *Epidendrum moniliforme*. A very splendid flowering orchideous plant. It is a native of Japan, and China. It is now grown in many collections in this country. The flowering stem rises to near two feet high, and produces the flowers in pairs, generally at the top of the stem. They are of a fine rose colour, inclining to white towards the centre, which is greenish. The *Labellum* is white, largely tipped with deep crimson. It is a very showy species, and deserves a place in every collection of this tribe of plants.

Gynandria Monandria, orchidæ. *Dendrobium*, from *Dendron* a tree; and *bis*, to live, referring to the Genus growing upon trees in the native habits, where they entwine about the branches of trees, and bloom in profusion.

5. *GOODETIA RUBICUNDA*, Ruddy flowered (*Bot. Reg.* 1856.) A very pretty flowering hardy annual, grown last season in the garden of the London Horticultural Society. The plant grows near two feet high, and produces abundance of flowers, very much resembling the *Oenothera rosealba*, in form and size, of a rosy-lilac colour with an orange-coloured eye at the centre, the base of each petal ending with that colour. The plant was introduced from California by Mr. Douglas. It blooms from July to September. *Octandria Monogynia*, *Onagraceæ*.

6. *JASOROSA INTEGRIFOLIA*. Entire leaved. (*Bot. Mag.*) Seeds of this plant were sent to the Glasgow Botanic Garden, from Buenos Ayres, by Mr. Tweedie. It has bloomed in the open border, in the Glasgow garden, in July and August 1835. It is a creeping plant, having large dark green leaves, and a single flower is produced at the axil of each pair. The flower very much resembles that of the square stalked Tobacco, only they are of a pure white inside, and of cream colour outside. The tubular part of the flower is about three

inches long, and the narrow petalled limb, of five narrow divisions, is about the same across. Pentandria Monogynia, Solanæ. *Jaborosa*, the Arabic name for the Mandragora, to which plant it is closely allied.

7. *LATHYRUS ROTUNDIFOLIUS*, var., *ELLIPTICUS*. Round leaved everlasting Pea.—A hardy perennial species, growing in the Birmingham Botanic Garden; the plant is not so robust in its growth as *Lathyrus latifolius*. It is a climbing kind, rising to the height of about four feet. The flowers are produced in profusion, each a little more than half an inch across, of a fine crimson colour. This variety, it is conjectured, is a native of Georgia. It is a very showy flowering plant. Diadelphia Decandria. Leguminosæ. *Lathyrus*, from *La*, augment; and *thouros*, any thing exciting, referring to the qualities of the Genus.

8. *LEPTOSIPHON ANDROSACEUS*. Androsace-like.—(Bot. Mag.) A free and pretty flowering annual plant. The stem rises about 9 inches high, and each is crowned by a corymbose head of whitish, or lilac coloured flowers, each flower about half an inch across, and about twelve in a corymb. The plant appears to like an airy and coolish situation. If seeds be sown early, and again late in Spring, such a succession will produce flowers for the most part of Summer. Pentandria Monogynia. Polemoniaceæ. *Leptosiphon* from *Leptos*, slender; and *siphon*, a tube, in allusion to the slender tube of the corolla.

9. *LUPINUS TEXENSIS*, Texas Lupine. (Bot. Mag.) This species very much resembles *L. subcarneus*, but it is of a more robust growth; the flowers too are of a much deeper blue colour. The present species is annual, smooth foliage, not fleshy. The five blue blossoms with a yellow centre make a pretty appearance. Diadelphia Decandria. Leguminosæ. *Lupinus* from *Lupus*, a wolf, referring to the effect of the plant in destroying the fertility of the soil.

*10. *NERIUM THYRSIFLORUM*, Dense flowered Oleander. (Mag. of Botany.) A very showy flowering plant, introduced from Nepal Sylhet in 1830. It has bloomed in the collection of Mr. Tate, Nurseryman, Sloane-street, Chelsea. The flowers single, produced in a spreading terminal cyme, which contains upwards of a dozen flowers; they are of a bright rosy pink colour, a little streaked with a lighter colour at the centre of each flower. It deserves a place in every greenhouse; if planted in a good rich soil, and forced a little in a hothouse to bring it into bloom, it will amply repay for the attention. The genus being vigorous growing plants, require a good share of pot room, and to be repotted each time a plant has done blooming. Pentandria Monogynia. Apocynæ. *Nerium* from *neros*, humid, referring to the habit of the plant in its native country, where it is found growing on the banks of rivulets, &c.

11. *ONCIDIUM ALTISSIMUM*, Tallest *Oncidium*. (Bot. Reg.) This plant has bloomed in the collection of Messrs. Loddiges's. The flowers are produced upon a long *decumbent* raceme, nearly simple, they are of a bright yellow colour, numerously spotted with brown. The Nectarium is of a greenish yellow. Gynandria, Monandria. Orchidaceæ. *Oncidium* from *Ogkidion*, a tubercle; referring to the two prominences on the lip of the flower

12. *ONCIDIUM CORNIGERUM*, Horned *Oncidium*. (Bot. Mag.) This very handsome flowering species has bloomed in 1836, under the able management of our friend Mr. Cooper. The flowers are produced very numerously upon a pendant scape of near a half a yard long, having a panicle of compound racemes of flowers. The flowers are of a fine yellow, spotted with red. Each flower is rather more than half an inch across. The plant was originally imported from Brazil, by the Hon. and Rev. William Herbert, of Spofforth, near Wetherby. Gynandria Monandria, Orchidaceæ.

13. *ORITHYIA UNIFLORA*, Single flowered, (Brit. Flow. Garden, 336.) Synonym's *Gagea uniflora*, *Ornithogalum uniflorum*, *Tulipa altaica*. A native of the country around the Altaic Mountains. The flower has much the appearance of a yellow crocus. The stem rises about three inches high. The flowers appear from April to June. It is cultivated in the Chelsea Botanic Garden. Hexandria Monogynia, Liliaceæ, *Orithyia* so named after *Orithyia* the fabled wife of Boreas.

14. *ROSA MICROPHYLLA*, Small-leaved Chinese Rose. (Bot. Mag. 3490.) This very pretty flowering rose is quite hardy, if grown in a dry and sheltered situation. It has bloomed most abundantly, is grown in a raised basket, but we had it worked upon a stock of the wild rose. If trained against a good aspected wall, it would bloom profusely. The flowers are very double, of a fine rose colour in the interior of the flower, but the outer row of petals is nearly white. The plant is readily propagated by cuttings, or buds. It may be procured at a cheap rate at most of the public nurseries.

15. *SENECIO AMPULLACEUS*, Flask-flowered American Groundsel. (Bot. Mag. 3487.) An annual plant, having a flower stem rising about two feet high. The flowers are produced upon a cylindrical involucre, they are of a fine deep yellow, each about an inch across. They make a showy appearance. The plant was found by Mr. Drummond in the Texas. Syngenesio, Superflua, Compositæ. *Senecio* from *senex*, old man; the naked receptacle having the appearance of a bald head.

PART III.

ORIGINAL COMMUNICATIONS.

QUERIES.

ON CALYCANTHUS PRÆCOX.—I am just in the same situation as "C. S." with regard to a double Pomegranate; there is this difference, mine has been four years in the ground, and has not yet had a single blossom; I also followed the directions given in a former number. My plant looks healthy and is quite a shrub, but without a symptom of blossom. I shall, therefore, be glad to hear the answer to C. S.'s query on that point, also on the subject of the *Calycanthus præcox*, as I was lead to believe, when I purchased mine in the Autumn, that it would blow the following Christmas. I attributed its failure to the severity of the frost after removal.

ON MOSS.—I shall feel obliged if any one will instruct me how to get rid of Moss in a long gravel walk. I have had the gravel picked up repeatedly, but as soon as it is rolled and becomes hard, the moss appears again.—I once tried salt, but that nourished the soil so much, that though the moss was killed, such a quantity of weeds sprang up, that the remedy was worse than the original disease, for the gravel was obliged to be turned up to be frosted.

Clifton, 1836.

MARIA.

ON GERANIUM SEEDS, &c.—I perceive that a question similar to the one I am about to propose, has been put by a correspondent, page 163, Vol. 2nd. I wish to know, whether the Seed of Geraniums should be sown immediately on taking it from the plant, or whether it should be kept during winter, and then sown early in spring. I raised some Plants the latter end of last summer, but they fagged off in the winter. I shall feel particularly obliged on my question, together with that of the Correspondent alluded to, being answered as early as possible.

P. S. Surely your Correspondent, page 49, of the March Number of this year, rather exaggerates the duration of time which he states his fuel lasts.

Canterbury, 1836.

AN AMATEUR DES FLOWERS.

ON GRAFTING OR BUDDING RHODODENDRONS.—You would oblige me by requesting one of your correspondents in the *Floricultural Cabinet*, to inform me, if he has successfully grafted or budded Rhododendrons, and if so at what season, and in what manner they succeed best.—Your Obedient,

A CUPAR FLORIST.

ON CAPE BULBS, &c.—A Subscriber would be greatly obliged by a little further information relative to the culture of bulbous roots in general. When planted in the open border, what depth ought they to be in the soil? Do the different bulbs vary much in that respect?—Again, as regards those which require heat, I have frequently observed the crown of the bulb raised above the surface of the soil, is that desirable? Should all the outer skins be removed which have the appearance of being decayed? Would you also have the goodness to name what proportion of loam there ought to be in a peat border intended for American Plants? what depth the compost ought to go? and if any sand or manure must be added.

A. B.

ON ORCHIDEOUS PLANTS.—I have been much pleased with the papers on the Cultivation of Orchideous epiphytes, by a "Country Florist," and regret them have not been continued in each successive number as promised, and the more so, because their place seems not so profitably occupied by the *Gleanings from Old Authors*. I trust your Correspondent will resume his labours in May,

and I would suggest, that instead of stating that these plants may be had for a "reasonable price," he would give the actual prices charged by nurserymen as far as practicable. No one will then be disappointed as I was the other day, when asking for a species of *Stanhopea*, I was told the price of a small plant was £5. 5s. If this be a reasonable price for a Country Florist, I fancy he has a longer purse than many of his brother florists. EPIPHYTE.

We have received another communication from a Country Florist, which will appear in the July number.—CONDUCTOR.

ANSWERS.

ON A YELLOW FLOWERING PLANT.—In March Number, "R." in reply to "Amicus" advises Moneywort, as a dwarf trailing plant—in addition, I beg to recommend white, pink, red, and yellow *Helianthemum*—the leaf is pretty, and they blossom abundantly from May till November—they look particularly well in rock work or in roots of trees; if put in the borders, a little pile of stones should be placed to plant them in, which they will soon conceal: a small root in a farthing pot, may be had of any nurseryman for 6d. or 9d. each root—they are very hardy and increase rapidly. MARIA.

ON A BOX FOR CARRYING DAHLIA BLOOMS.—In answer to your constant reader, at Ackworth, a Box made of whatever size he might require, would carry the Dahlia flowers safe by having a false bottom with holes just of sufficient size for the stem, the bottom part filled with damp moss and a pin run through the stem close under the wood, the flowers then could not move, but the false bottom must be tacked inside carefully; I should say with long tacks, so as to be able to loose it easily at its destination. I think on this plan they would carry 200 miles, and merely require the usual direction, "with care, keep this side up." TULIP.

THE HISTORY OF THE DAHLIA, &c.—In answer to the enquiry in the *Flori-cultural Cabinet* of February last, respecting the earliest introduction of the Dahlia, "A. Z." is informed that our gardens are indebted to Mr. John Frazer, son of the late indefatigable collector of North American plants, for bringing to England in 1802, the *Dahlia coccinea*, the first known species, which plant flowered in a hothouse in June 1803, at the Nursery, Chelsea, figured and described in Number 210 of Curtis's Botanical Magazine. As a tribute of grateful respect to the introducer, it is proposed that the Horticultural Societies, and the eminent growers and cultivators of this splendid genus, (which is now producing such endless beautiful hybrid varieties) shall raise a subscription prize for the best new Dahlia of the season 1836, to be called "the Frazer Dahlia."

London, April 27th, 1836. A SUBSCRIBER.
(We shall be glad to assist in the furtherance of this object.)—CONDUCTOR.

REMARKS.

ON EAST AND WEST INDIAN SEEDS, &c.—Cushing, in his *Exotic Gardener*, in which the management of the Hothouse, Greenhouse, and Conservatory is fully delineated according to present practice. Loudon, 1814, in the Hothouse department says, "much depends on the state of the seeds when received. East and West Indian Seeds generally arrive with the regular fleet, as indeed do those from the Cape of Good Hope; and all the South Sea Islands for the most parts by the Eastern and China ships, so that one may in general be prepared against their arrival. As early in the spring as possible is undoubtedly the best time for sowing, yet a few weeks' delay, in some instances, may be advisable. If received late in October or November, I should certainly wait until January or perhaps February, unless it evidently appeared they would not keep long out of the earth, so long a time in a vegetative state."

"The different sorts of mould necessary to be used in this business, such as loam, peat, well-rotted dung, vegetable mould, sand, &c. all of which intended for this purpose should be finely sifted, and kept separate till wanted for use."

His different composts are for

Light Loam.....	Half Peat.
Do. Rich do.	Half do. Half Vegetable Mould.
	or $\frac{1}{2}$ do. $\frac{1}{2}$ peat, and $\frac{1}{2}$ old hotbed dung.
Sandy Peat	Peat and fine sand.
Rich Sandy Loam	$\frac{1}{2}$ Dung to Sandy Loam.
Strong Rich do.	$\frac{1}{2}$ do. to a strong clayey Loam.
Very Light do.	$\frac{1}{2}$ Peat, and $\frac{1}{2}$ Loam.

TULIP.

NEW PLANTS.—Mr. Young exhibited, at the London Horticultural Society Meeting, a new plant similar in flower to a Fox-Glove, introduced from China. From the Garden of the Society, *Douglasia nivalis*, an alpine plant from Canada. *Aristolochia trilobata*, remarkable for the long tails of the flower. *Nemophila insignis*, pots of it in bloom, it is of a most beautiful blue. *Berberis aquifolium*, the only hardy evergreen plant sent by the late Mr. Douglas.

METROPOLITAN SOCIETY OF FLORISTS AND AMATEURS.

At a Meeting of the Committee of the above Society, held April 14th., it was unanimously Resolved,

"That a die be prepared for a Silver Medal, to be presented to Provincial Societies, for the purpose of being awarded to the cottager, who shall take most prizes in the year for flowers; and that the following Societies be apprized that they will receive one each as soon as completed, for such purpose, viz., Bristol, Bath, Cheltenham, Cambridgeshire, Wallingford, Sheffield, Yorkshire East Riding, Swansea, with such others as may be determined on hereafter by the Committee. I understand that any other Provincial Society applying to the above committee for a Medal, for the purpose specified, will meet with immediate attention.

London, April 29th.

J. C. C.

**LIST OF FLORICULTURAL AND HORTICULTURAL MEETINGS,
TO BE HELD IN JUNE.**

BATH ROYAL HORTICULTURAL SOCIETY.—Pinks, Ranunculuses, and other Flowers, Fruits, &c. on *Thursday 23rd*.

BEVERLEY AND EAST-RIDING OF YORKSHIRE, *Wednesday, June 8th*.

BAONLEY, KENT, *June 18th*.

CAMBRIDGESHIRE HORTICULTURAL SOCIETY, to be held at Cambridge, on *Wednesday 8th, 15th, and 22nd*.

CHELTEHAM HORTICULTURAL SOCIETY, for Ranunculuses, Pinks, Fruits, &c. on *Tuesday 14th*.

DORKING (SURREY) HORTICULTURAL SOCIETY, for Geraniums, Ranunculuses, Pinks, Calceolarias, Roses, and Fruits, on *Saturday 25th*.

EAST LONDON HORTICULTURAL SOCIETY, for Ranunculuses, &c. held at the Salmon and Ball Inn, Bethnal Green, on *Monday 13th*.

HERTFORDSHIRE HORTICULTURAL SOCIETY, to be held at Hertford, on *Wednesday 29th*.

LONDON HORTICULTURAL MEETINGS, at the Offices in Regent-Street, on *Tuesday, June 7th and 21st*; and a grand Exhibition at the Gardens, on *Saturday the 11th*.

METROPOLITAN SOCIETY, for Roses, Ranunculuses, Pinks, and other Flowers, to be held at Vauxhall, on *Thursday 23rd*.

READING HORTICULTURAL SOCIETY, on *Tuesday 21st*.

SHEFFIELD HORTICULTURAL SOCIETY.—Ranunculuses, Pinks, and other Flowers, Fruits, &c. on *Wednesday 22nd*.

STAMFORD HILL (near London) HORTICULTURAL SOCIETY, for Geraniums, Roses, Ranunculuses, Pinks, Pansies, and other Flowers and Fruits, on *Wednesday 8th, 15th, or 22nd*.

SUNBURY PINK SHOW, held at the Flower-Pot Inn, on *Wednesday 29th*.

TANWORTH (Staffordshire) HORTICULTURAL SOCIETY.—Roses, Pinks, Ranunculuses, &c. *Wednesday 29th*.

WOOLWICH HORTICULTURAL SOCIETY.—Pinks, &c. held at the Barrack Tavern, on *Friday 17th*.

A SHOW OF DAHLIAS, OPEN FOR ALL ENGLAND,
is to be held at Horsham in Sussex, on *Tuesday, August 23rd*. Prizes of considerable value will be awarded to successful competitors.

LONDON HORTICULTURAL SOCIETY.

April 5th. The Camellia Show was held in the Rooms, Regent Street.

EXHIBITED FOR PRIZES.

By Mr. Chandler.—Camellia japonica var. striped flowered. C, j, var imbricata. C, j, var. Fimbriata.

By Mr. Glenny.—C, j, var double striped. C, j, var fimbriata. C, j, var althaeiflora.

By Mr. Chandler.—English Seedling Camellias in pots.

Baskets of cut Specimens of Camellias from Mr. Chandler, Mr. W. Wells, and Mr. Donald. Specimens grown in the open air.

English Seedling Camellias. Specimens from Mr. Chandler, Mr. Allnutt, and Mr. Glenny.

EXTRAS NOT FOR PRIZES:

By Mr. Chandler.—Camellias Double White, Chandleri, concinna, althaeiflora. Mr. Allnutt, seven seedling Camellias. J. C. Palmer, Esq. Basket of Camellia Specimens. W. Wells, Esq. Basket of Camellia Specimens. Mr. Glenny,—Euphorbia splendens, Panzies, and a seedling Rhododendron. Mr. Pressly,—Euphorbia splendens, Tropaeolum tricolorum. Messrs. Young, of Epsom,—A hybrid Rhododendron, Phaius Woodfordi immaculata, Acacia verticillata, Ardisia hymenandra. Mr. Lane, gardener to J. C. Palmer, Esq.,—Tropaeolum tricolorum. Mrs. Marryatt,—Solandra grandiflora. Mr. Buck, Drimys species; Plumbago rosea.

Mr. Chandler received a large silver Medal for the best three Chinese Camellias in pots; and a large silver Medal for the best three English seedling Camellias in pots. Also, a Silver Banksian Medal for the best basket of English Seedling Camellia Flowers.

Mr. Wells, a Silver Banksian Medal for the best basket of cut specimens of Camellias.

Banksian Medals were awarded to Messrs. Young, of Epsom, for a plant of Ardisia hymenandra. To Mr. Lane, for a plant of Tropaeolum tricolorum.

MEETING ON APRIL 19th.

Exhibited from Lady Farnham, a splendid Specimen of Rhododendron arboreum. Mr. Duncan, a new pale flowered variety of Rhododendron Nobleanum. Mr. Allnutt, an Apple-blossomed Camellia. Sir A. Hume, Bart. a fine specimen of Magnolia conspicua, which had been gathered from a tree growing against a house. Mrs. Marryatt, nine species of Acacia, and Magnolia conspicua; and Acacia pubescens, do. longissima, from plants grown in the open air.

BATH ROYAL HORTICULTURAL AND FLORAL SOCIETY.

The present season commenced on April 21st., with as splendid an exhibition as the most sanguine could have expected at so early a period. Nothing that science, taste, or wealth could produce was wanting, the variety appeared endless, the whole superlative attractive. The company appeared to comprise all the fashion and elegance of the city, augmented by a considerable influx of the neighbouring gentry. The chief display in the great tent was indebted for many of its choicest attractions to Mr. Salter, of Kensington Nursery, and to Messrs. Lucombe, Pineo, and Co., nurserymen of Exeter. The former, it will be seen below, sent no less a number than 450 plants and flowers, and his contributions in this form are the more acceptable and valuable, because he does not compete for the prizes, but supports the Society upon disinterested public ground. Among the contributions of the latter, (brought, it will be observed, from so great a distance as Exeter,) were some beautiful new Seedling Chinese Azaleas, of perfectly novel colours—from rich purple to the delicate tint of the rose, geranium-colour, pink, &c. These are really great acquisitions to our greenhouse collections.

They exhibited also some very fine specimens of crimson Hybrid Rhododendrons; but their show of Camellia Flowers, was perhaps, the most magnificent rarity in the exhibition.—They consisted of 30 distinct named sorts of choies Camellias, viz.: the Reticulata, the Imbricata, the Parmenterii, the Palmerii, (dazzling white,) the Florida, the Altheaflora, the Chandlerii, the Coralina Variegata, the Rosa Sinensis, the Sasanqua Rosea, the new Ghent Seedling, the Alba Simplex, the Rosa Mundi, the Grey's Invincible, the Welbankiana, the Speciosa, the Pæoniiflora, and the Pompons. This stand also displayed some very noble-looking plants, such as the Amaryllis reticulata, the Erica Monsoniana, the Gingora atropurpurea, the Oncidium luridum, (with 150 flowers), &c. A great variety of elegant baskets of plants and cut flowers were ranged down the south side of the tent, and on a table on the north side a collection of cut Pansies of every conceivable hue.

HULL FLORAL AND HORTICULTURAL SOCIETY.

The first exhibition for the present season, of the above society, was held on May 2nd, at the Public Rooms. Notwithstanding the ungenial state of the weather for some weeks past, the show of flowers was very splendid, and formed a most auspicious commencement of the society's operations. Indeed, it was considered by many, as superior to most of the exhibitions for several years past. The flowers exhibited, were Auriculas and Hyacinths, of both of which there were some remarkably fine specimens on view; as also of greenhouse plants, fruits, &c. The judges for the Auriculas were Messrs. Ely, (of Leeds) Wharton, Bell, Lumb, and Kells; for the fruit, cucumbers, &c., Messrs. Morehouse, Kells, Lumb, and Priest, (of Beverley.) The following is a list of the flowers, &c. considered as entitled to the premiums:—

Premium by R. Bethell, Esq. M. P.—Mr. Dobson's Leigh's Colonel Taylor.

Premium by P. B. Thompson, Esq. M. P.—Mr. R. Deighton's Hey's Apollo.

Premium by Major Sykes—Dr. Horner's Kenyon's Ringleader.

Green-edged—1. Mr. Dobson, Leigh's Colonel Taylor. 2. Dr. Horner, Pollet's Standard of England. 3. Mr. Deighton, Pollet's Highland Boy. 4. Mr. Dobson, Booth's Freedom. 5. Dr. Horner, Stretch and Barlow's King. 6. Mr. Beecroft, unknown. *Grey Edged*—1. Dr. Horner, Kenyon's Ringleader. 2. Mr. Deighton, Grimes's Privateer. 3. Ditto, Kenyon's Ringleader. 4. Dr. Horner, Ryder's Waterloo. 5. Mr. Deighton, Grime's Privateer. 6. Mr. Oglesby, Warris's Union. *White Edged*—1. Dr. Horner, Hugh's Pillar of Beauty. 2. Mr. Deighton's, Taylor's Glory. 3. Mr. Dobson, Taylor's Incomparable. 4. Dr. Horner, Leigh's Bright Venus. 5. Ditto, Ashforth's Rule-all. 6. Mr. Beecroft, Taylor's Glory. *Sells*—1. Mr. Deighton, Hey's Apollo. 2. Dr. Horner, Berry's Lord Lee. 3. Mr. Dobson, Hey's Apollo. 4. Dr. Horner, Flora's Flag. 5. Mr. George Hodgson, ditto. 6. Dr. Horner, Whittaker's True Blue.

ALPINES—1. Mr. Oglesby, Emmerson's Favourite. 2. Mr. G Hobson, unknown. 3. Dr. Horner, ditto. 4. Mr. Dobson, King of the Alps. 5. Dr. Horner, Rising Sun. 6. Mr. Beecroft, Emmerson's Favourite.

POLYANTHUS.—Premium by the society.—Dr. Horner, Pearson's Alexander. *Scarlet*.—1. Dr. Horner, Stead's Telegraph. 2. Mr. Smitheon, Crownshaw's Invincible. 3. Mr. Dobson, Cox's Regent. 4. Ditto, ditto. 5. Ditto, unknown. 6. Ditto, Cox's Regent. *Dark*—1. Dr. Horner, Pearson's Alexander. 2. Mr. Deighton, ditto. 3. Dr. Horner, Hufton's Lord Raneliff. 4. Mr. Dobson, Pearson's Alexander. 5. Ditto, Cox's Regent. 6. Ditto, Pearson's Alexander.

HYACINTHS.—Premium by J. C. Parker, Esq. Mayor.—Mr. Burman's Temple Van Apollo. Premium by W. Hutt, Esq. M. P.—Mr. Burman's Groot Voorst. *White and Yellow Double*—1. Mr. G. Parker, La Cheria. 2. Mr. Burman, unknown. 3. Mr. Bell, Anna Maria. 4. Mr. Atkin, unknown. *Red and Pink, Double*—1. Mr. Burman, Groot Voorst. 2. Mr. Bell, Ditto. 3. Mr. Dobson, Compts de la Ceste. 4. Ditto, Groot Voorst. 5. Mr. Burman, ditto. 6. Ditto, Waterloo. *Blue and Purple, Double*—1. Mr. Bell, Bouquet Pourpre. 2. Mr. Burman, Lord Wellington. 3. Mr. Dobson, L'Illustre. 4. Ditto, ditto. 5. Mr. G. Parker, unknown. 6. Mr. Burman, Azure. *White and Yellow, Single*—1. Mr. Dobson, Voltaire. 2. Mr. Bell, Bouquet Triumphant. 3. Ditto, Voltaire. 4. Ditto, Grand Vainqueur. 5. Mr. Dobson, ditto. 6. Mr. Burman, ditto. *Red and*

Pink, Single—1 Mr. Burman, Temple Van Apollo. 2 Ditto, Diana. 3 Mr. Bell, Rounge Brillante. 4 Mr. Dobson, Ersteide de Vredo. 5 Mr. Burman, Princess Elizabeth. 6 Mr. Dobson, Temple Van Apollo. *Blue and Purple, Single*—1 Mr. Dobson, Bounaparte. 2 Mr. Burman, Azure. 3 Ditto, Emicus. 4 Ditto, Grand Vidette. 5 Ditto, L'Ami Decour. 6 Mr. Bell, Lord Wellington. NARCISUS (POLYANTHUS)—1 Mr. G. Parker, Grand Monarque. 2 Ditto, unknown. 3 Mr. Atkin, ditto. 4, 5, 6. Mr. Smithson, ditto.

POLYANTHUS NARCISUS, SOLITARY FLOWERED—1 Mr. Smithson, Sulphur Croon. 2 Ditto, ditto. 3 Ditto, Van Sion. 4 Mr. Bell, Sulphur Croon. 5 Mr. Oglesby, Van Sion. 6 Ditto.

STATEMENT OF THE PRIZES,

Awarded at the Auricula and Polyanthus Show of the Leeds Florist Society,

HELD APRIL 25th, 1836.

AURICULAS.

1st Class, Green Edges.	{	1. Leigh's Colonel Taylor,	Mr. Wm. Chadwick.
		2. Tomlinson's Commander,	Do.
		3. Barlow's King	Do.
		4. Taylor's Plough Boy	Do.
		5. Rider's Waterloo	Beeston.
		6. Buckley's Jolly Tar	Do.
2nd Class, Grey Edges.	{	1. Grime's Privateer,	Chadwick.
		2. Syke's Complete	Do.
		3. Hey's Lovely Ann	Do.
		4. Kenyon's Ringleader	Do.
		5. ———— Revenge	Beeston.
		6. ———— Walter Fawkes	Chadwick.
3rd Class, China Edges.	{	1. Lee's Bright Venus	Beeston.
		2. Pott's Regulator	Chadwick.
		3. Taylor's Glory	Beeston.
		4. Hughes' Pillar of Beauty	Chadwick.
		5. Ashworth's Rule-all	Do.
		6. ———— Beauty of Barlow ..	Do.
4th Class, Selfs.	{	1. Hey's Apollo	Do.
		2. Berry's Lord Lee	Do.
		3. ———— Ned Ludd	Do.
		4. Grime's Floras Flag	Do.
		5. ———— Seedling	Beeston.
		6. Berry's Lord Primate	Chadwick.
5th Class, Alpines.	{	1. Berry's Fair Rosamond	Do.
		2. Edmondson's Favourite	Do.
		3. Cookson's Mary (Seedling) ..	Rev. F. Cookson.
		4. ———— Alicia do.	Do.
		5. ———— King of the Alps ..	Mr. Chadwick.
		6. ———— Seedling	Beeston.

POLYANTHUSES.

1st Class, Dark.	{	1. Pearson's Alexander	Mr. Foster.
		2. ———— Black Prince	Do.
		3. ———— Cox's Regent	Do.
		4. Foster's Mrs. Emmett (Seedling) ..	Do.
		5. ———— Seedling	Kearley.
		6. ———— Lord Jno. Russell	Do.
2nd Class, Red.	{	1. Foster's Cox's Regent,	Chadwick.
		2. Crownshaw's Invincible	Do.
		3. ———— Seedling	Kearley.
		4. ———— Do.	Foster.
		5. ———— Unknown	Do.
		6. ———— Do.	Chadwick.

CAMBRIDGE FLORISTS' SOCIETY.

The Auricula show of this society took place on Friday, April 29th, in the large Assembly Room, Hoop Hotel. The flowers on the whole were not so fine as we have been accustomed to see on former occasions, owing to the late unfavourable state of the weather. Rev. J. S. Henslow, Professor of Botany, favoured the meeting with a brief lecture on the cultivation of florists' flowers, tracing their gradual altération and improvement from "weeds" to their beautiful appearance and splendid colours as exhibited that day. How thankful all ought to be to the all-bountiful Giver of life, that so innocent and delightful an occupation was afforded them to exercise their industry and moments of relaxation from business. This address gave great pleasure to every person present, and was received with much applause. The prizes gained during the last season were then distributed; after which the chairman addressed the society's late Honorary Secretary, Mr. J. R. Stubbings, in an appropriate speech, and in the name of the society, presented him with a neat silver cup, in testimony of their respect and approbation of the manner in which he had discharged the duties of his office.

The following inscription is engraved on the cup.

Presented to John R. Stubbings, April 29, 1836, by the Members of the Cambridge Florists' Society, in testimony of their approbation for his unwearied exertions as their Honorary Secretary.

Mr. Stubbings returned thanks for the mark of approbation presented by his brother members, and of which he should ever be proud: he kindly thanked the Rev. Chairman for the handsome manner in which he had conveyed the wishes of the society. The following is the award of the Judges:—

AURICULAS.

Premium Prize—Mr. R. Headly.... Oliver's Lovely Ann.

GREEN EDGED.

Rev. R. Lascelles .. Hunt's Conquering Hero.
— Ditto.....Ditto.
Mr. Hyland .. Beerli's Superb
— R. Headly.. Colonel Taylor.
— Ditto.....Booth's Freedom
— Ditto.....Ditto.

GREY EDGES.

Mr. R. Headly .. Oliver's Lovely Ann
— E. Foster .. Kenyon's Ringleader.
— Ditto.....Ryder's Waterloo.
— R. Headly.. Ringleader.
W. Bond, Esq. .. Syke's Complete.
Mr. Giddins Lancashire Hero.

WHITE EDGES.

Mr. Wood.....Taylor's Glory.
— Giddins .. Popplewell's Conqueror.
Rev. R. Lascelles. Leigh's Bright Venus
Mr. Giddins .. Popplewell's Conqueror.
— Wood.... Taylor's Favourite.
Rev. R. Lascelles. Ditto.

SELFS.

Mr. Wood Redman's Metropolitan.
— R. Headly.. Whittaker's True Blue.
Rev. R. Lascelles .. Blue Admiral.
Mr. Giddins True Blue.
— Hyland.... Grimer's Flora's Flag.
— Wood..... Redman's Metropolitan.

SEEDLING AURICULAS.

1 and 2 Mr. R. Haylock.

POLYANTHUSES.

Premium Prize—Mr. Hyland.... Wood's Gold Lace.

DARK GROUND.

Mr. Hyland.... Wood's Gold Lace.
— Wood.....Ditto.
— Ditto.....Ditto.
— Ditto..... Collier's Princess Royal
— Ditto.....Ditto.
Rev. R. Lascelles .. Burnard's Formosa.

RED GROUND.

Mr. Wood.... Wood's Ajax.
— Ditto..... Buck's George IV.
SEEDLING POLYANTHUSES.
Mr. Wood.... Wood's Honourable Mrs.
Howlden.
— Ditto.... Wood's Oliver Cromwell.

HYACINTHS.

DOUBLE RED.—Mr. Widnall..... Waterloo.

DOUBLE WHITE.

Mr. Ready..... Groot Voorst.
— Ditto..... Eugene Beauharnois.
— Ditto..... Bouquet Tendre.
— Widnall.... Comte de la Costa.

DOUBLE BLUE.

Mr. Ready..... Platoff.
— Ditto..... Roi de Pourpra.
— Widnall.... Porcelaine Sceptre.

BEST PLANT IN BLOOM.—Mr. Widnall..... Cactus speciosissima.

THE EXHIBITION OF THE HAMPSHIRE HORTICULTURAL SOCIETY,
 WAS HELD AT THE WHITE HART HOTEL, IN WINCHESTER,
 On Thursday, the 10th of March.

The show was most splendid in forced flowers, vegetables, and greenhouse plants—fruits were confined to pears and apples, the latter were numerous and exhibited good management in the gardeners method of preserving them. The Rev. V. Beaden, the President, exhibited a collection of stove plants, a fine specimen of *Bletia Tankervillea*, *Euphorbia elegans*, &c.; a very fine box of forced lilies of the valley, a large basket of finely flowered Neapolitan Violets, a tray of handsome Hyacinths, and a collection of other flowering plants were sent by Mr. T. Baring, Bart; a good collection of Hyacinths by the Rev. Mr. Cheere; a fine *Daphne odoratissima*, and other greenhouse plants, by Col. Wall; a remarkably fine specimen of *Tropaeolum tricolorum*, with other greenhouse plants, John Fleming, Esq.; a collection of greenhouse plants, by the Rev. Mr. Rashleigh; a beautiful specimen of a new *Stapelia*, by the Rev. T. Garnier; a fine collection of greenhouse plants, by the Hon. Mrs. Craven; an excellent specimen of *Mimulus Swithin*, by the Rev. F. Wickham. On the middle table were some good specimens of forced *Rhododendron Catawbiense*, *Azaleas*, *Lachenalias*, &c. There was a distribution of grafts and seeds amongst the members, which were sent by the London Horticultural Society, together with a liberal supply from Messrs. Reynolds, of Brentford, and Messrs. Page and Rogers, of Southampton, in the whole between 3000 and 4000 packets.

LITERARY NOTICES.

Just Published—*FLORA METROPOLITANA, OR BOTANICAL RAMBLES* within thirty miles of London, made in 1833, 34, and 35, by DANIEL COOPER.

Preparing for Publication, the Magazine of Zoology and Botany, under the superintendence of Sir W. Jardine, Bart., P. J. Selby, Esq., and Dr. Johnston, of Barwick. To be published every second month. Price 3s. 6d.

REFERENCE TO PLATE.

No. 1. *MIMULUS ELPHINSTONIA*.—This new and splendid variety was recently raised by Mr. Elphinstone, of Holmbush. The plant is a most profuse bloomer, and quite hardy; it is one of the most ornamental plants for a flower garden; the blossoms far exceed in size and splendour of colours, any that we have seen. *Mimulus*, from *mimo*, an ape, the seeds being like a face.

2. *TOURNEFORTIA HELIOTROPICOIDES*.—This very pretty flower very much resembles the *Heliotropium corymbosum*, but is of a deeper blue colour, and like that plant is admirably adapted for a showy bed—producing a pleasing effect when in such masses. The flowers are not fragrant, like the *Heliotrope*; the plant is an herbaceous perennial, growing very freely, and blooming most profusely from May to October; the flower stems rise to about two feet high; it requires a slight protection in winter, either under a frame, or cool greenhouse; it is a native of Buenos Ayres, introduced about five years ago, into this country. The plant may be obtained at many of the principal nurseries; it deserves a place in every flower garden; it delights in a rich soil. Pentandria, Monogynia, Boraginæ. *Tournefortia*, in compliment to L. P. Tournefort, the celebrated French Botanist.

3. *EUTOCA MENZIESII*, Mr. Menzies's.—This new and beautiful flowering hardy annual, was sent from Columbia, in North West America, by the late Mr. Douglas, where it grows and blooms profusely, in a sandy soil. The plant grows erect, about a foot high. Plants raised from seeds sown in March, bloom from May to July, and if sown in May, bloom from July to the end of September; it merits a place in every flower garden. Pentandria Monogynia. Hydrophyllæ. *Eutoca*, from *eutoca*, fruitful, referring to the abundance of seeds produced.



Mimulus lewisii



Mimulus aurantiacus

THE FLORICULTURAL CABINET,

JULY 1st, 1836.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.—ON SOILS, &c.—By a FOREMAN OF A LONDON NURSERY.

LOAM, peat and sand, seem to be the three simples of nature, if I may so call them, most requisite for our purpose ; to which, we occasionally add as mollifiers, vegetable mould and well rotted dung ; from the judicious mixture and preparation of which, composts may be made to suit plants introduced from any quarter of the globe : first of Loam, which is a loose friable kind of earth, the constituent particles of which crumble and separate easily in the hand ; it is of various textures, the strongest approaching to clay, and so down in several shades, until the lightest becomes nearly similar to strong sandy peat. It is found of different colours, viz. black, yellow, red, &c. &c.; sometimes also, it partakes of a saponaceous quality approaching to a marl ; this when predominant is not recommendable for general use ; yet there are some articles for which it may be used with considerable success.

Yellow or red seems to be the natural colour of maiden loam, as either will change to black as they become more or less mixed with other extraneous substances, such as dung, &c. Therefore, to have it pure, which is very material, one should prefer either of these, if they can be conveniently procured. The places to look for this kind of earth, is generally in fields, that have not been broken for a long series of years ; also sheep downs, or commons most frequently running in dry banks perhaps throughout the whole ; its strata is of various thicknesses, sometimes being little more than that which forms the turf or upper sward, and at other times lying from one or two, to three or four feet under the surface. That is generally the best which is of a moderate depth, being more within the ameliora-

ting powers of the sun and atmosphere; the other lying deeper, being known to abound with crude unqualified matter very unfavourable to the growth of tender plants, unless exposed in the compost yard for a year or two to the weather, whereby, it will become fit for all strong growing woody kinds, or fruit trees in general.

Loam, being found answerable to the purpose for which it is designed, it should be immediately carted home and heaped in a clean part of the compost yard for a few months, so that the turf, and fibres of the grass, may have sufficient time to decay, and the whole become more qualified for use through the action of the season: when it has lain thus for some time together, it will be found to be in a very good state for working.

This sort of soil is particularly adapted for striking cuttings in general, on account of its firm close texture, and the twofold quality of retaining moisture longer than either peat or sand, and at the same time, its own natural dissolubility, which admits the young fibres of the cuttings to push through it freely, as soon as formed, to that which they more immediately like to grow and flourish in, a stratum of which is generally put in the bottom of the pot.

From its strength it seems more adapted to arborescent plants in general, which have powerful roots, that are seldom able to support themselves in lighter soils, more especially in dry seasons; while from its purity and sweetness, it may be said to give additional flavour to the most delicate fruits.

The word Peat, is generally understood to mean common bog earth; however, that which may literally be termed *bog*, is by no means proper for our purpose, on account of its wet coagulating nature, and tendency thereby to rot the roots of the plants; at least if peat is to be taken from those situations, the very surface only should be chosen, as that is found to contain a greater portion of the fine, drying, opening kind of sand, so necessary to this species of soil.

The places where I would recommend to look for the proper peat, are those dry healthy commons, where it seems to form a medium between bog earth and sand, it is not unfrequently found forming a mere skin, over a bed of pure sand, or gravel. The turf or sod, cut about four or six inches deep, is always the best for use, as it is in general the lightest, and abounds with sand, as already mentioned, which is I think invariably found to be the finest near the surface in such cases. Spots where the wild heath grows luxuriantly should be diligently selected, as producing the best peat for general use; but when it is considered that of the plants mostly cultivated in this kind of soil, some grow in swamps near rivers, others in barren sandy

wastes, and more in all their various intermediate stations, as mountains, low lands, &c. &c. especially heaths from the varied surface of Southern Africa; it will surely be obvious, that a supply of every variety of soil should be always at hand, and that the peat answering for one species will not be so congenial as another brought from a very different situation and soil.

It should be cast into a heap in the compost yard for twelve or fourteen months before used, a practice which ought to be observed with composts in general.

It is to be used only for such plants as are known to grow naturally in peat, or those which are known to thrive best in a very light sandy soil: also to be mixed occasionally with Loam, for such as delight in an intermediate compost.

Most plants grow remarkably free in peat during the summer season, if kept carefully watered, particularly those which come under the denomination of half herbaceous or biennial like plants; yet, even these, are often liable to perish in winter, on account of the extreme lightness of the soil, and the cold necessarily produced by frequent watering.

Shrubby, hard wooded, and fine fibrous rooted plants in general, thrive very well in this and loam, mixed in about equal proportions; but I think it by no means suitable to fruits. It is seldom used by itself except for heaths, Botany Bay plants, and the general productions of Northern America, to all of which it seems particularly adapted.

Sand is rarely used simply, except for striking cuttings of the two first of the above mentioned plants; viz. heaths, and Botany Bays; for which it is peculiarly suitable; their fine hair-like fibres not having strength to vegetate in stronger soils. An inch or two in depth on the surface is quite sufficient, as it is intended merely to strike the cutting in, the lower part of the pot being filled with peat, into which the young fibres will soon penetrate, and draw therefrom the principal part of their nourishment as from their parent soil: it should be kept moderately moist when used in this manner, otherwise, from its natural drying quality, it would soon parch up and destroy whatever cuttings may have been put therein.

The soil of the interior parts of Southern Africa being for the greater part excessively sandy, a considerable portion of it should be used in the composts intended for the productions of that country, both of woody, herbaceous, and bulbous species.

Pit sand should be invariably preferred for this purpose, it being, of a more lively vegetating nature than river or sea sand, and if we

may judge by colour, the whitest that can be procured ; as I have always observed it to be the finest, and have from repeated trials proved that the finer the sand, the surer a good crop of cuttings.

It requires no kind of preparatory process, more than shifting, to divest it of those small pebbles, &c., which are usually found amongst it, and to be kept pure and unmingled with extraneous substances, until wanted for use.

By vegetable mould, at least the kind best suited to our purpose, is meant that which accumulates, or in a manner grows, if I may use the expression, in woods, particularly those of a long standing, by the annual fall of leaves, &c., and their consequent decay ; the vicissitudes of a few revolving seasons reduces them to a perfect mould, which is afterwards known by the above appellation. It is of a very loose, light nature, and comparatively rich, but far behind that produced by the mixture of animal excrement. Yet it is doubtless of an ameliorating nature, and highly recommendable for such plants as delight in a moderate and well digested manure.

In its simple state it is hardly fit for any thing except annuals, as its extreme lightness, like the peat, renders it unable to support arborescent plants with any degree of credit : however, when mixed with loam, or any other soil of a more firm texture than itself, it is particularly useful for West India plants, geraniums, and annuals in general.

The best manner of procuring it is to have several large pits dug in the most convenient part of the woods, into which may be annually raked all the leaves in the vicinity, together with the general surface of the ground produced by them in preceding years, which will materially accelerate their decomposition ; so that in a few months, they become a perfect mould, and fit for use,

Of animal manure, that procured from old hot-beds is, I think, most suitable for composts in this department. It likewise should not be used for plants until rotted to a perfect mould ; to promote which, it should be well mixed with a small portion of loam in the compost yard, whereby they will become better incorporated, and more fit for use ; it is necessary however, not to add too much loam to it in this process, as it is so much easier to add afterwards than to take away, according as circumstances may require.

This mixed with a proper quantity of loam, is in general the best compost for such plants as have soft fleshy roots, also for soft wooded, half shrubby, and herbaceous kinds of plants, annuals, biennials, &c. &c. but is never used simply by itself, and very rarely, if at all, mixed with peat or sand.

The very great variety in the nature of plants, taken *en masse*, renders it utterly impossible to specify within the limits of this article, the soil proper for each particular species; however I think it may be advanced as a rule not subject to many objections that the whole of each genus are generally fond of the same compost. I shall draw up a table of Genera, of which any of the species are known to require the aid of the greenhouse or stove; shewing that peculiar soil, most suitable to each particular genus; deduced from observations on the extensive collections I have had under my own particular care, combined with those which I have had an opportunity of making on others, as well in the vicinity of London, as around Dublin.

The necessity of this combination is evident from the difficulty of finding the whole of the genera here enumerated, in any single collection in the united kingdom.

ARTICLE II.—A LIST OF PLANTS, SUITABLE FOR PLANTING OUT IN A CONSERVATORY.

BY MR. FRANCIS GOODALL, GARDENER, RHODE HALL, NANTWICH, CHESHIRE.

As your Correspondent, "a Devonian," solicits the favour of a list of Conservatory Plants, I have sent you the following which are suitable for the pit of a large conservatory—also a list of climbers, suitable for the Columns, Pilastres, and Trellis. The whole may be purchased from Mr. Knight, of the Exotic Gardens, Kings Road, Chelsea, London. Indeed, Mr. Knight grows very fine plants for furnishing conservatories.

The *Telopea speciosissima*, on the culture of, which a "Devonian" requests the favour of a few hints, is one of the most beautiful greenhouse plants; it will do very well in the pit of a conservatory, if well managed; the most suitable soil is one-third light loam, one-third peat, and one-third fine sand. If placed in a conservatory, choose a situation where the plant may get plenty of light and air, and be very sparing of the water during the autumn and winter, although the plant should never be allowed to flag. The *Azalca indica*, of which there are several fine varieties, thrive best in sandy peat—I have never tried it in the pit of a conservatory; the pots should be well drained through broken potsherds, and treated during the summer months, the same way as other greenhouse plants.

At the usual time for houseing, place them in the greenhouse, afterwards they may be taken a few at a time into the forcing house, when they will soon show their beautiful blossoms, and make a most splendid show when placed in the vases in

the conservatory. I have never tried the *Proteas* in the pit of a conservatory, being of opinion that they would not do well; the best soil for them is a light turfy loam, mixed with one-third of fine sand; the pots should be well drained, and care should be taken not to let them droop for want of water, as the young roots are of a fleshy substance, and soon suffer by being too dry, as well as by being too wet, they seldom recover if permitted to droop long; they also should be placed where they will have a free circulation of air.

A LIST OF CONSERVATORY PLANTS.

<i>Acacia alata.</i>	<i>Calistemon linearis.</i>
——— <i>decipiens.</i>	<i>Cistus roseus.</i>
——— <i>arinata.</i>	——— <i>formosus.</i>
——— <i>taxifolia.</i>	<i>Calothamnus quadrifida.</i>
——— <i>falcata.</i>	——— <i>vilosa.</i>
——— <i>angustifolia.</i>	<i>Cratægus glabra.</i>
——— <i>linearifolia.</i>	<i>Cassuarina stricta.</i>
——— <i>verticillalata.</i>	——— <i>equisitifolia.</i>
——— <i>elongata.</i>	——— <i>suberosa.</i>
——— <i>floribunda.</i>	<i>Calceolaria integrifolia.</i>
——— <i>latifolia.</i>	<i>Cluattia glauca.</i>
——— <i>sophora.</i>	<i>Calistachys lanceolata.</i>
——— <i>pulchella.</i>	<i>Cassia multiglandulosa.</i>
——— <i>lophantha.</i>	<i>Cassine maurocenia.</i>
——— <i>discolor.</i>	<i>Correa alba.</i>
——— <i>pubescens.</i>	——— <i>pulchella.</i>
——— <i>decurrens.</i>	——— <i>virens.</i>
——— <i>longifolia.</i>	<i>Celastrus buxifolias.</i>
——— <i>myrtifolia.</i>	<i>Cyclopia genistoides.</i>
——— <i>ulicina.</i>	<i>Cussonia pinnata.</i>
<i>Aster argophyllus.</i>	<i>Crotolaria elegans.</i>
——— <i>dentatus.</i>	<i>Ceanothus africanus.</i>
<i>Anthyllis hermannia.</i>	<i>Clethra arborea.</i>
——— <i>erinacea.</i>	<i>Ceratonia siliqua.</i>
<i>Arbutus canariensis.</i>	<i>Doryanthus excelsa.</i>
<i>Banksia ericifolia.</i>	<i>Dodonea triquetra.</i>
<i>Bauera rubioides.</i>	<i>Eucalyptus pulverulenta.</i>
——— <i>humilis.</i>	——— <i>piperita.</i>
<i>Beaufortia decussata.</i>	——— <i>oppositifolia.</i>
——— <i>sparsa.</i>	——— <i>obliqua.</i>
<i>Bursaria spinosa.</i>	——— <i>globosa.</i>
<i>Brunia superba.</i>	<i>Eutaxia myrtifolia.</i>
<i>Blandfordia grandiflora.</i>	——— <i>pungens.</i>
——— <i>nobilis.</i>	<i>Enkianthus quinqueflora.</i>
<i>Beckia virgata.</i>	<i>Epacris grandiflora.</i>
<i>Callistemon lanceolata.</i>	——— <i>juniperina.</i>
——— <i>speciosa.</i>	——— <i>pulchella.</i>
——— <i>saligna.</i>	<i>Ficus aspera.</i>

- Gastrolobium bilobium.*
Globularia longifolia.
Goodia pubescens.
 — *latifolia.*
Grevillea linearis.
 — *sericea.*
 — *punicea.*
Hakea dactyloides.
 — *saligna.*
 — *obeifolia.*
 — *florida.*
 — *pugioniformis.*
 — *suaveolens.*
 — *ceratophylla.*
 — *gibbosa.*
Halleria lucida.
Ilex perado.
 — *canariensis.*
Lebeckia cytissoides.
Lamarkia dentata.
Lasiopetalum ferrugineum.
Leptospermum ambiguum.
 — *flavescens.*
 — *floribundum.*
 — *juniperinum.*
 — *myrtifolium.*
 — *thea.*
Laurus camphora.
Laucophyllus capensis.
Lomatia salicifolia.
Lagerstremia indica.
Lenenotus leonurus.
Metrosideros floribunda.
 — *canaliculata.*
Melaleuca incana.
 — *virgata.*
 — *armillaris.*
 — *densa.*
 — *decussata.*
 — *coronata.*
 — *squarrosa.*
 — *styppiloides.*
 — *hypericifolia.*
 — *diosmifolia.*
 — *splendens.*
 — *thymifolia.*
Melia azedarach.
Myrica quereifolia.
Magnolia fuscata.
- Magnolia pumila.*
Myrcine africana.
 — *retusa.*
Mimulus glutinosus.
Myoporum elipticum.
Nerium oleander.
 — *splendens.*
Nandina domestica.
Olea apetala.
 — *excelsa.*
 — *fragrans.*
Persoonia lanceolata.
 — *latifolia.*
 — *fusca.*
 — *linearis.*
Podalyria latifolia.
 — *myrtifolia.*
 — *sericea.*
 — *styracifolia.*
Pittosporum coriaceum.
 — *undulatum.*
 — *pumila.*
Pomaderris apetala.
 — *elliptica.*
Passerina filiformis.
Pultenea daphnoides.
 — *stricta.*
Pinckea pubens.
Prostanthera lasianthus.
Podolobium trilobatum.
Psoralea pinnata.
Polygala grandiflora.
 — *speciosa.*
 — *myrtifolia.*
Pogonia glabra.
Rhus trifoliata.
Rubus rosafolius.
Rhododendron arboreum.
Reaumaria hypericoides.
Schaerola crassifolia.
Sideroxylon iuerve.
Sophora capensis.
Serissa fetida.
Sparmania africana.
Salvia chamedrifolia.
Swainsonia coronillifolia.
 — *albiflora.*
Thomasia solanacea.
 — *quercifolium:*

<i>Telopea speciosissima.</i>	<i>Vestia licyoides.</i>
<i>Tristania laurifolia.</i>	<i>Viminaria denudata.</i>
— <i>nerifolia.</i>	<i>Westringia rosmarinifolia.</i>
— <i>conferta.</i>	<i>Yucca superba.</i>
<i>Simpletonia retusa.</i>	<i>Zieria Smithii.</i>
<i>Virgilia capensis.</i>	

CLIMBERS FOR THE CONSERVATORY.

<i>Aristolochia sempervirens.</i>	<i>Kennedia angustifolia.</i>
— <i>glauca.</i>	— <i>bimaculata.</i>
<i>Bignonia capreolata.</i>	— <i>Comptoniana.</i>
<i>Billardiera mutabilis.</i>	— <i>inconspicua.</i>
— <i>scandens.</i>	— <i>monophylla.</i>
<i>Begonia grandis.</i>	— <i>rubicunda.</i>
<i>Clematis capensis.</i>	— 2 var. <i>major.</i>
— <i>florida.</i>	<i>Caprifolium japonica.</i>
— <i>florida simplex.</i>	— <i>sempervirens.</i>
<i>Cobea scandens.</i>	— <i>flavum.</i>
<i>Convolvulus canariensis.</i>	— <i>nepalense.</i>
— <i>punifolias.</i>	— <i>flexuosum.</i>
— <i>Oxatilis.</i>	<i>Maurandya semperflorens.</i>
<i>Decumaria sarmentosa.</i>	— <i>antirrhineflora.</i>
<i>Dolichos lignosus.</i>	— <i>Barclayana.</i>
<i>Eccremocarpus scaber.</i>	<i>Passiflora racemosa cœrulea.</i>
— <i>longiflorus.</i>	— <i>angustifolia var.</i>
<i>Brachysema latifolium.</i>	— <i>chinensis.</i>
— <i>undulatum.</i>	<i>Periploca africana.</i>
<i>Glycine sinensis.</i>	— <i>lævigata.</i>
<i>Hibbertia volubilis.</i>	<i>Smilax Ripogonum.</i>
— <i>lanceolata.</i>	<i>Scisandra coccinea.</i>
— <i>grossularifolia.</i>	<i>Tecoma grandiflora.</i>
<i>Jasminum gracile.</i>	— <i>capensis.</i>
— <i>azoricum.</i>	— <i>australis.</i>
— <i>grandiflorum.</i>	<i>Usteria personata.</i>
— <i>heterophyllum.</i>	— <i>scandens.</i>
— <i>revolutum.</i>	

All the varieties of the *Camellia japonica* may be kept in pots, and may be forced to introduce occasionally. The *Azalea indica* also in all its varieties.

ARTICLE III.—ON AN INTERESTING MODE OF TRAINING PLANTS,
With a List of Kinds to which it is peculiarly applicable.

BY LOUISA.

THE usual mode of training climbers in the Stove, Greenhouse, or Conservatory, has, in my judgment, many objectionable things in its practice. The plan is to have them run up lofty pillars, walls, trellises, or rafters, by which the flowers are generally removed too far from minute observation, so as to distinctly notice the beautiful form

or colours of the blossoms. It occurred to me in the spring of 1835, that some other method might be devised to answer every purpose of the plants, and bring the blossoms close to view. I therefore had some wire frames constructed at various heights and diameters, some six feet high, others five and four, and of such a diameter as that the bottom of the frame fitted to the size of the pot in which the plant was growing. I had a few made with four upright strong wires, but they did not look at all so neat as those I had with six. The top of the wire frame is made to splay, so that it is rather funnel shaped: The coating wire is commenced at the bottom and is continued, at two inches apart, to the top. I had a few girths of wire quite round the whole in order to bind them firmly and steadily, whilst the coiled wire was to train to.

This plan brings the plants within desirable bounds for training and regulating, which attention, on the old system, is often found difficult to perform, and then neglect ensuing, disorder is the unsightly result. But in my mode of treatment, it is easily and neatly performed, and affords a very pleasing duty to secure the leading shoots to the desired positions. The result is, the collecting into the small compass of a bush, and thus quite near to view, in many instances of hundreds of blossoms. I beg to assure the readers of the *Cabinet*, that those persons who may adopt the same plan will not fail of being highly pleased with it.

The kinds of plants I have used this mode of training to, are the following, but it is properly applicable to all climbers, either exotic or hardy.

<i>Tropæolum tricolorum.</i>	— — — — — azoricum.
— — — — — pentaphyllum.	<i>Passiflora cærulea.</i>
<i>Hibbertia crenata.</i>	— — — — — racemosa.
<i>Kennedia coccinea.</i>	— — — — — floribunda.
— — — — — Comptoniana.	— — — — — laurifolia.
— — — — — monophylla.	<i>Rhodochiton volubile.</i>
— — — — — ovata.	<i>Lophospermum scandens.</i>
— — — — — dilatata.	<i>Eccremocarpus scaber.</i>
<i>Cobæa scandens.</i>	<i>Maurandia Barclayana.</i>
<i>Dolichos lignosus.</i>	— — — — — semperflorens.
<i>Convolvulus pannifolius.</i>	<i>Convolvulus major.</i>
— — — — — canariensis.	<i>Ipomea striata.</i>
<i>Lonicera japonica.</i>	— — — — — coccinea.
— — — — — flexuosa.	— — — — — punctata.
<i>Jasminum grandiflorum.</i>	<i>New Crimson.</i>
— — — — — revolutum.	<i>Nasturtium.</i>

All of the above did remarkably well, and I think it would answer equally as well for many of the finest hothouse climbers.

June 3rd, 1836.

ARTICLE IV.—A CONTINUED LIST OF CAMELLIAS.

BY MR. G. J. KAMEL.

My former communication on a list of Camellias being favourably received by the conductor of the *Cabinet*, (See Vol. 3. page 186) I forward you an additional list of some newer kinds, judging it will be of some interest to the numerous readers of the *Cabinet*: affording them information as to what new and additional kinds are now in cultivation.

CHINESE SPECIES.

Camellia reticulata.
 *Japonica*, *candidissima*.

BRITISH AND CONTINENTAL HYBRID VARIETIES.

Camellia Japonica alba semiduplex.
 *heteropetala alba*.
 *insignis alba*.
 *nivalis*.
 *nivea*.
 *ochroleuca*.

BRITISH AND CONTINENTAL RED FLAVOURED HYBRIDS.

Camellia Japonica, var. *acutipetala*:
 *ardens*.
 *Adelaidii*.
 *Blackburniana*.
 *compacta rubra*.
 *concinna*.
 *Fordia*.
 *Floyii*.
 *Hendersonia*.
 *Flosackia*.
 *ignescens*.
 *rubicunda*.
 *triumphans*.
 *Vandesia superba*.

BRITISH AND CONTINENTAL VARIETIES WITH VARIEGATED FLOWERS.

Camellia Japonica, *alba variegata*.
 *Campbellii*.
 *Carswelliana*.
 *delicatissima*.
 *Donkelarii*.
 *imbricata alba*.

<i>Camellia Japonica</i> , Julianai.	
.....	<i>picturata</i> .
.....	<i>punctata major</i> .
.....	<i>ranunculiflora striata</i> .
.....	<i>tricolor</i> .
.....	<i>venusta</i> .
.....	<i>versicolor</i> .
.....	<i>Weimarii</i> .

ARTICLE V.—ON THE CULTURE OF ORCHIDEOUS PLANTS.

BY A COUNTRY FLORIST.

(Continued from page 36.)

EPIDENDRUMS.—The whole of this genus are singular in form and pretty, and are easy of cultivation. The flowers are, generally, numerously produced upon lengthy spikes, and some of them very highly fragrant.

1. **EPIDENDRUM ARMENIACUM.** This species I saw in bloom exhibited at the show in the London Horticultural Society's Garden, and since then have procured a plant which has blossomed. The flowers are very diminutive, and are produced upon a bending raceme, about four inches long. They are of a brown yellow colour, and are very neat, particularly when placed in contrast with other colours. It blooms in June and July. I find the plant grows freely in pots filled with turfy peat and potsherds.

2. **E. BICORNUTUM**, Two horned. I have bloomed this species several times. The flowers are of a beautiful white, and delightfully fragrant; produced upon a stem about a foot long, from four to six upon each. It requires the same kind of soil &c. as the former sort. It blooms in July and August.

3. **E. CILIARE**, Fringed flowered. The petals of this kind are of a greenish yellow colour, and the labellum of a pure white—the labellum is much fringed; it is a very ornamental species; the flower stem rises about a foot high; it blooms from March to August. I have found this kind to thrive very luxuriantly.

4. **E. CONOPSEUM**, The gnat shaped flower. This species is of a humble growth, the stem rising about three inches high, and producing a few small yellow flowers, which are very neat and pretty. It blooms in August and September. The same treatment as with the other sorts answers for this, only being of delicate growth it does not require so much pot room.

5. *E. CUSPIDATUM*, The pointed. The flower stem rises about a foot and a half, having several flowers, the petals of which are of a yellowish green colour, and the rest of the flower a pure white. It is a ornamental species. It blooms with me in July and August.

6. *E. COCHLEATUM*, The spiral. The flowers are produced upon a stalk about fifteen inches long. They are very curious, being of a brown and purple colour; this kind flowers nearly all the year.

7. *E. DIFFUSUM*, The diffuse flowered. The flower stem does not extend more than a foot long, the flowers are green, but pretty. It blooms in September and October.

8. *E. ELONGATUM*, Long stalked. The flower stem extends near a yard long, producing numerous flowers, of a reddish colour. It blooms from May to September. This species is easy of culture, and of propagation; in turfy peat, rotten wood and potsherds, grown in a strong moist heat, this kind flourishes amazingly.

9. *E. FRAGRANS*, Sweet scented. The flower stem extends about nine inches, producing numerous, highly fragrant flowers, which give a delightful odour in the stove. The petals are of a greenish white colour, and the labellum is streaked with deep rose. It is a very deservedly cultivated species. This kind grows best with me, in equal parts of rotten wood, turfy peat, and potsherds; I also use a little moss for bottom drainage, which is of advantage.

(To be continued.)

ARTICLE VI.—ON A HEDGE FORMED OF FUCHSIAS.

BY LUCY.

DURING the summer of 1835, I visited a considerable number of Noblemen and Gentlemen's gardens in the midland counties, as Leicestershire, Nottinghamshire, Northamptonshire, &c., and among the most showy and ornamental plants which came under my notice and attracted my attention, was a hedge formed of *Fuchsia virgata*. It was fifty yards long, and six feet high, clothed with a vast profusion of the beautiful pendant blossoms. No adequate conception can be formed of its beauty by those persons who have not seen it.

The very intelligent, and communicative gardener, gave me the following particulars of the mode of management he had so successfully practised with the plants, which in two years had been brought to a state of perfection and beauty.

In the spring of 1833 two old plants of *Fuchsia virgata*, growing in the open border, were taken up, and having many rooted suckers they were divided from the old plants. Each sucker was potted into

a 24 sized pot, in a compost of one half well rotted leaf mould, and the other rich sandy loam. The newly potted plants were then placed in a hotbed frame for a fortnight in order to cause the roots to be excited, after which they were removed into a greenhouse. Each plant was tied up to a straight stick, to which the leading shoot was regularly secured. All lateral shoots were cut back, "when they got about six inches long," so as only to leave one joint upon each. This shortening was repeated through the season, the inducement to which was to cause the leading stem to grow vigorously and at the same time to retain short laterals to push from, when the lead had reached the desired height.

About the middle of June the plants were shifted, with balls entire, into pots a foot in diameter at the top, using the same kind of compost. The plants still kept in the greenhouse. During the whole of summer they were *liberally* supplied with water at the roots, and occasionally, with the other plants in the greenhouse, syringed over the tops.

At the end of the season of 1833, the leading stem of each was near five feet high, and abundantly furnished with short lateral shoots.

The plants were kept in a cool greenhouse throughout winter, and in April 1834, were planted out with balls entire, but gently shook and patted so as to loosen the fibrous roots outside the ball. The ground was previously prepared for their reception, by taking away the poor soil to the depth of half a yard, and filling it up with a well enriched compost. The plants were well watered at the time of planting, and this was frequently repeated during the season.

Each plant had a strong straight stake to which it was secured; during the summer, the plants formed a very handsome hedge, and bloomed profusely. The design of forming the hedge was to conceal an object from view, at the front of a range of plant stoves.

At the end of November the entire hedge was covered with woollen netting, the mesh of which was half an inch square, this was secured over the same by a temporary railing along the sides. The netting admits a suitable portion of light and air, but is a perfect security to the plants from injury by frost.

In April 1835 the netting was taken away and the lateral shoots were pruned back, so as to leave about six inches of each. This formed the plants into the shape of a close set hedge of thorns. During summer they spread and bloom profusely, they are protected in winter, and pruned again in April."

I have just received a letter from the person who furnished the above practical particulars, and who says the hedge has not suffered the least during the last winter, but is now full of young shoots:

Near Bedford, May 20th 1836.

P. S. I think the plan of forming a plant after the above manner, would be very proper to stand singly on a lawn; the plant would be feathered with branches from the ground to the top; I have two in course of training and pruning.

ARTICLE VII.—REMARKS ON THE TREATMENT OF THE DAHLIA.

BY MR. WILLIAM CHARLES.

EVERYTHING tending to the improvement of Floriculture, I am sure will meet with encouragement from the conductor of the *Cabinet*. I therefore forward a few remarks on the treatment of the Dahlia, for insertion in that Publication.


For several years I have had opportunities, both from extensive practice and observations in some of the principal Nurseries in the Kingdom, of ascertaining what method of culture with the Dahlia, throughout the year, would be successful, so as to secure a profuse bloom of fine flowers, and preserve the roots most sound through winter. These desirable results are most effectually produced by earthing the stems up similar to what is done with potatoes; the advantages derived from it are numerous—the plants grow more freely, the flowers larger, the colours finer, the crowns of the roots more plumper, the roots more sound, in Autumn the crowns are preserved from effects of cold, rain, and frost, and the roots keep far better in winter than if otherwise treated.

I find too, that if the stems of seedlings be earthed up, that it will cause them to bloom earlier by three weeks.

June 4th, 1836.

ARTICLE VIII.—GLEANINGS FROM OLD AUTHORS.

BY FLORA.

IT is certain, that all plants are naturally possessed of a humour that we call Radical, without which, they could never grow; and in regard this humour is fed and maintained by another foreign humour, which arises commonly from rain, or from the watering of the plants, we may from thence gather the necessary use of watering. It is by this succour, that these productions extend all their parts, and act with such  and efficacy as to answer our desires.

So it remains only to know how this watering is to be performed, so as to benefit the flowers, and make them look gay in the garden.

With respect to this, we must distinguish between the different seasons. In summer, plants require much watering, especially in the evening, after the sun is down, that the water, which has a propitious influence, may foment itself in the bosom of the earth, and so its subtlest parts may be conveyed into the roots for their benefit.

Plants require some watering in winter, but it must not be done in that season till some time after the sun-rise; nor must it ever be done at night, lest they should freeze in the night-time, when the cold is keenest. Besides this watering must be moderate, and care must be taken not to wet the leaves, but the stalk and root; which is dexterously done by pouring the water from the neck of a small watering-pot without a head.

Besides the proper season for watering, we must likewise have regard to the proper quantity. Too much or too little makes plants droop; whereas, when they imbibe just what their nature will bear, they thrive and grow wonderfully.

In watering plants, we generally make use of a watering-pot, which, spouting out the water contained in it, in the form of rain, moistens them equally all over, and sensibly refreshes them.

Some plants set in pots, are sometimes so dry, that they fade and droop; in which case, we set the pots in water till it comes within a finger's breadth of the brim; there let them stand, till the water, entering at the holes in the lower part of the pot, appears upon the surface of the earth contained in the pot. Then take them out, and set them in some other place to drain.

Sometimes the earth, whether in pots, boxes, or open beds, by being over-heaten with moisture, forms upon its surface a crust, which is so hard, that the water falling upon it, runs off from the root of the plant, where its service is required: in this case, you must stir up the earth, that the moisture passing directly, may penetrate and revive the plant.

It is given out, that well-water being insufficiently rarified, by reason of its degrees of cold, is not salutary to plants: but experience shews, that when it is taken up at some distance of time, and heated in vessels by the sun beams, it operates very well.

Running-water is most esteemed, on account of its agitation and incessant flux, it subtilizes, and warms itself, and so gains beneficial qualities.

Water taken from cisterns, is yet better, by reason, that falling from on high, it is richly stocked with the subtile parts of the air, and the fire, to which we owe our life; so that it cannot but render a garden very fertile. For the same reasons, we find that rains make the fields very fertile.

As for pool, and stagnating waters, some say they are not at all friendly to plants ; because, say they, they contain some gross parts, which cannot without difficulty penetrate the plants, and so are apt to do more harm than good ; besides, continue they, they are apt to breed worms, which cling to, and destroy their roots, to the fatal prejudice of the plant. But, after all, we find that even these waters rarified by heat, are admirably serviceable to the root of a flower ; which gives us to know, that by virtue of that rarification, the stagnating waters get rid of their impurities. So that upon the whole we are not in the wrong, if we say that this opinion is scrupulous without ground.

Sometimes it so falls out, that the frequent rains would over-soak the earth contained in Flower-pots, if due care were not taken to prevent the inconveniency. And, upon this consideration, if the time permits, these pots ought, upon the apprehension of such occasions, be laid down on their side, with the bottom to the wind-ward ; for, without this precaution, the Mother-Roots, and their off-spring would be in danger of dying

It is sometimes observed, that a plant decays, when a certain yellowish colour appears upon its leaves ; in which case, the disorder is taken to proceed from its roots. To redress this disorder, we take the flower-pot, and place it on one side, and gently pouring in water out of a little pot with a small pipe, till it gradually makes a hollow down to the root ; we then perceive where the disorder in the root lies : then we take a hooked knife, and cut the disordered part to the quick. This done we leave the wound or incision, to dry for half an hour, and then cover with a little turpentine, and at last, fill the pot with dry and very light earth.

If it be a bulbous root that falls under this disorder, it behoves you, dexterously to shed the earth round it, in order to lay open the place affected ; which done, we cut it with a knife to the quick, and take off the spoiled tunicles, or coats ; after which, we cover up the whole with such earth as we last prescribed.

We oftentimes observe, upon the surface of the earth in a flower-pot, a certain whitish mouldiness, which is like a cobweb covered with a little dew, and smells like mushrooms. Such earth is pernicious both to the roots, and to the shoots of the plant ; and, for that reason, whenever we perceive any such mouldiness, and the subsequent decay of the plant, the best thing we can do is to change the earth, by putting in its room fresh earth, sufficiently enriched with salts, and of a light temperament. This will revive the plant.

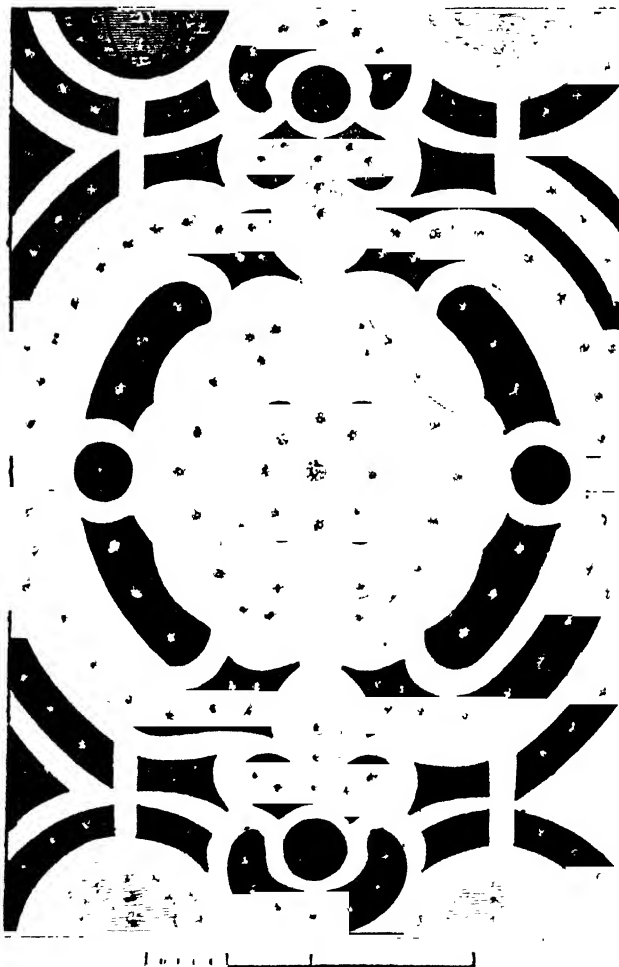
ORIGINAL COMMUNICATION.

ARTICLE XII.—DESIGN FOR FLOWER-GARDENS, No. V, Design 6th.

Communicated by Amicus.

THE Plan (Fig. 14) represents a Flower-Garden, which contains a little more than half an acre, having two alcoves at each end. The plan may be easily reduced, by proportionably altering the scale.

14



PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. **CAMELLIA RETICULATA**, Captain Rawes' Camellia. (Paxton's Mag. of Bot.) Natural Order, Ternstræmiaceæ; Class, Monadelphia; Order, Polyandria. The flowers of this species are very large, being six inches across, of a fine deep rose colour. When fully expanded, they have much the appearance in form of the flowers of *Pæonia Montanæ rosea*. The petals are arranged in a loose and irregular manner, and have a wavy appearance. The plant is of a very robust habit, but has been found difficult to propagate. It was introduced into this country in 1820, by Captain Richard Rawes, and presented to T. C. Palmer, Esq. Bromley, Kent, along with another great ornament, the *Primula sinensis*. The Camellia flowered for the first time in this country at Mr. Palmers, it is now cultivated in most nursery plant establishments. The plant seems impatient of heat, and begins to grow earlier than any other kind. *Camellia*, in compliment to G. J. Kamel, a Jesuit, and Asiatic Traveller, whose name has been latinized into *Camellus*.

2. **CATTLEYA LABIATA**, Crimson lipped. (Bot. Reg. 1839.) Orchidaceæ, Epidendreae. Gynandria Monandria. This very handsome flowering orchideous plant, is cultivated by our friend Mr. Cooper, at Wentworth, where it blooms magnificently; and as it does not require so strong a temperature as most others of this tribe, consequently deserves a place in every collection; the very great beauty of the flowers too, still more strongly recommend it. Each flowering stem will produce from four to six flowers; the flower is about four inches across; labellum of a fine deep rich crimson, the petals of a beautiful lilac; the fine contrast of the two colours give it a most striking and pleasing appearance, producing a radiance of beauty and splendour rarely to be equalled. The plant may be obtained at Messrs. Loddiges, Robinsons, and others; it was introduced some year since from Brazil, by Mr. William Swanson. *Cattleya*, in compliment to William Catley, Esq., Barnet, near London.

3. **CRATÆGUS CRUS GALLI**, VAR. **OVALIFOLIA**, Oval leaved Cockspur Thorn. (Bot. Reg. 1860.) Synonym. *Mespilus lucida*, *M. linearis*, *Cratægus ovalifolia*, *C. crus galli*, *ovalifolia*. It has been called *C. pennsylvanica* by some persons. This variety of the Cockspur Thorn, has more oval and less shining leaves, with a more open growth than the two commoner kinds, viz., the *Pyracantha* leaved, and the broad leaved, which grow in a dense form, and have smooth shining leaves. The present variety forms a very handsome tree, producing white flowers, succeeded by large pale red berries. It is grown in the garden of the London Horticultural Society. The original species of Cockspur Thorn is a native of North America. *Cratægus* from *Kratos*, strength, alluding to the wood. *Crus Galli*, refers to the long and powerful spines resembling the spurs of a cock.

4. **CRATÆGUS PRUNIFOLIA**, Plum-leaved. (Bot. Reg. 1868.) Synonym. *Mespilus prunifolia*. Rosaceæ. Icosandria Di Pentagynia. A very pretty species, the leaves of which have a deep crimson hue in autumn, and five, nearly globular shaped, red fruit, each containing two stones. The plant is stated to be from North America. It is cultivated in the garden of the London Horticultural Society.

5. **CRYBE ROSEA**, Pink-flowered. (Bot. Reg. 1572.) Orchidaceæ. Gynandria Monandria. The plant and flower has much the resemblance of some of the delicate kinds of *Bletia* before their blossoms expand—those of the *Crybe rosea* never opening. The plant is a native of Mexico, and has bloomed in the collection of Messrs. Loddiges. The unexpanded flower is of a club-shaped form, and of a deep purple colour, slightly tinged with white; the plant requires a stove heat. *Crybe*, from *Krupto*, to conceal, alluding to the manner in which the parts of fructification are concealed by the corolla not expanding.

6. *DENDROBIUM INACROSTACHYUM*, Long-spiked. (Bot. Reg. 1866.) Orchidaceae. Gynandria Monandria. This species has bloomed in the collection of Mr. Bateman at Knyppesley Hall, it is a native of Ceylon where it was found by Mr. Macrae. The flowers are numerous upon a long spike, each flower is rather more than half an inch across. Of a pale yellow colour. The lip being tinged with a pale purple. *Dendrobium* from *Dendron*, a tree, and *bis* to live upon.

7. *EPIDENDRUM ARMENIACUM*. Apricot-coloured (flower) Epidendrum. (Bot. Reg. 1867.) Messrs Rollissons of Tooting imported this species from Brazil. The flowers are produced on a drooping spike, they are very small about one eighth of an inch across, of a brownish-yellow colour. *Epidendrum* from *Epi-pon* and *dendron*, a tree, the species growing upon trees.

8. *EPIDENDRUM SKINNERI*. Mr. Skinner's Epidendrum. (Bot. Reg. 1870.) Orchidaceae. Gynandria Monandria. Mr. Skinner discovered this species near Cumana two years since. The flowers are small, white, not of much interest.

9. *HABENARIA PROCERA*. Tall Habenaria. (Bot. Reg. 1858.) Synonym. *Orehis procera*. This species has bloomed in the collection of Messrs Loddiges it is a native of Sierra Leone. In this country it requires the temperature of a damp hot house. When done flowering the root requires a considerable rest, and that time to be kept dry and cool. The flower spike rises about two feet high producing a head of numerous blossoms, of a greenish-white each flower near an inch across. *Habenaria* from, *haberna*, a rein or thong, in allusion to the strap shaped spur of the flower.

10. *HYACINTHUS SPICATUS*. Spike-flowered. (Bot. Reg. 1869.) Liliaceae. Hexandria Monogynia. A native of Zante, where it was discovered by H. T. Talbot Esq. and has bloomed at the residence of that Gentleman, Lacock Abbey, Wilts; the flowers are produced upon a spike rising near four inches high, they are small, each about half an inch across, blue slightly suffused with white.

11. *IPOMEA RUBRO-CERULEA*, Reddish-blue flowered. (Pax. Mag. of Bot.) This splendid flowering plant ought to have a place in every collection. We have latterly bloomed it in profusion. (see it figured some time ago in the Cabinet) *Ipomea* from *Ips*, bindweed, and *homois*, similar.

12. *KENNEDYA MACROPHYLLA*, Large-leaved (Bot. Reg. 1862.) This kind very much resembles the *K. Comptoniana*, and renders it doubtful whether it be a mere variety of that species, but the present is of a more robust growth. The plant is a native of the Swan River, New Holland, and introduced into this country by Sir James Stirling. It bloomed in the select collection of Robert Maugels, Esq., Sunning Hill, Berkshire. It is a very pretty kind and well merits a place in every greenhouse. *Kennedy*, in compliment to L. Kennedy, Esq: late of Hammersmith Nursery.

13. *LYCHNIS BUNGEANA* Bunge's Lychnis, (Bot. Reg. 1864.) Synonym., *Agrostemma Bungeana*. Silenaceae. Decandria Pentagynia. This fine flowering species flourishes and blooms well if kept in a light part of a greenhouse, or a cool frame. It was sent from St. Petersburg in 1835 by Dr. Fischer. It is cultivated in the garden of the London Horticultural Society, and as it is readily increased will soon be easily to obtain. *Lychnis*, from *Luchnos* a lamp, in consequence of the cottony leaves of some kinds being employed as wicks for lamps.

14. *MANETTIA CORDIFOLIA*, Heart-leaved. (Bot. Reg. 1866.) Cinchonaceae. Tetrandria Monogynia. A beautiful stove climbing plant a native of Brazil, where it beautifies the hedges and copses, to the height of four or five feet. It flowers profusely in the hothouse. The flowers are trumpet-shaped, above an inch long, of a beautiful orange scarlet colour; the plant deserves a place in every collection. The bark of the plant is a powerful medicine in cases of dropsy. *Manettia*, in compliment to Xavier Manetti, a Professor of Botany at Florence, in the last century.

15. *MAXILLARIA AROMATICA*, Aromatic. (Bot. Reg. 1871.) Orchidaceae. Gynandria Monandria. Synonym, *Colax aromatica*. A native of Mexico, now cultivated in the Edinburgh Botanic Garden, as well as many other collections. The flowers are produced singly, about an inch and a half across, of a fine yellow colour. *Maxillaria*, from the labellum resembling the maxilla of some insects.

16. *MOERHOUSSIA ATROPURPUREA*, Dark-purple flowered. (Bot. Reg. 1861.) Orchidaceae. Gynandria Monandria. A beautiful flowering stove plant, re-

quiring the same treatment as the *Cassietams*, viz., to be kept cool and dry when they are not in a growing condition, as they begin to be excited, to be gently forced, but when in full vigour of growth, to have a very free supply of moisture. The present species has bloomed in the fine collection of J. Wilmore, Esq., Oldfield, near Birmingham. It had been introduced in 1834, from the Spanish Main. The flowers are produced very densely upon a shortish spike, from ten to twelve flowers upon each. Each blossom is about an inch across, of a dark purple and red colour. *Mormodes* from *Mormo* a frightful object, alluding to the singular appearance of the flowers.

17. *NEMOPHILA AURITA*, Ear-leaved. (Brit. Flow. Gard. 336.) *Hydrophyllum*. *Pentandria Monogynia*. A native of California, from whence it was sent by the late Mr. Douglas. It is a very pretty flowering, hardy annual. The flowers are near an inch across, of a purple blue colour; it produces seeds freely in the open air. They may be obtained of the principal seedsmen. *Nemophila*, from *Nemos*, a grove; and *phileo*, to love.

18. *RHODODENDRON ARBOREUM*, var. *roseum*. (Brit. Flow. Gard. 339.) Pink-flowered Tree Rosebay. This very beautiful flowering variety was raised from seeds sent from Nepal, in 1819, by Mr. William Smith, at the Earl of Liverpool's Coombe Wood, near Kingston, in Surry, and was bloomed at Mr. Smith's, Norbiton Common. The flowers are of a deep rich pink colour, with dark spots, large, and are produced in a compact globular cluster. It deserves a place in every American border. *Rhododendron* from *Rhodo*, rose; and *dendron* a tree.

19. *RIBES MALVACEUM*, Mallow-leaved Currant. (Brit. Flow. Gard. 340.) The species is a native of California, found by the late Mr. Douglas. The flowers are somewhat like the beautiful *R. sanguineum*, but not near so pretty. The shrub grows to about three feet high; the leaves have a peculiar balsam scent; it is cultivated in the nursery of Messrs. Osborn, Fulham, near London.

20. *TRICHOPILIA TORTILIS*, Twisted-petalled. (Bot. Reg. 1863.) *Orchidaceae*. *Gynandria Monandria*. This plant very much resembles the *Maxillaria*. It is a native of Mexico, and was introduced in 1835, and is cultivated in the collection of George Barker, Esq., Springfield, near Birmingham. The petals are of a brownish yellow colour; the labellum white, with numerous large red spots, very pretty and interesting. *Trichopilia*, from *Oris trichos*, hair; and *pilion*, a cap; the parts of fructification being concealed below a cap which is crowned with three tufts of hair.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON DESTROYING THE SCALE INFESTING CAMELLIAS.—I have a fine collection of Camellias under my care which are infested with a whitish Scale, and I find it a very tedious job to pick them off, can you or any of your numerous correspondents, inform me of a ready method of destroying them without injury to the plants, by so doing you will very much oblige
A SUBSCRIBER.

An early answer will be esteemed a favour.

ON CORONILLA GLAUCA PLANTED IN THE OPEN BORDER.—Having a bed which I was desirous of filling with a yellow flowering plant, I purchased twenty four for the purpose. I planted them out early in May, and hoped to have a profuse bloom through the season, but to my great disappointment I had not a single flower—the plants grew freely. If any particular mode of treatment be required to cause the plants to bloom, I should be glad if some correspondent would favour with it.
MARIA.

ON THE FOLiage OF ORCHIDEOUS PLANTS BEING DAMAGED, &c.—I have cultivated about one hundred kinds of the Orchideous tribe of plants for about two years; the first year they flourished very well, but the second season, though the

last season, and cultivated some plants of it exactly as for dwarf plants of *B. suaveolens*, and it answered most admirably—blooming profusely and appearing most beautiful, with its long, deep red and orange blossoms. The plant I cultivated was three feet high, and had twenty-seven blossoms. Having procured the plant of *B. sanguinea* early in February 1836, I cut off the top. I inserted the top into a plant of *B. suaveolens*, it soon united, and the new plant bloomed, the flowers were much larger than those on the plant I took the lead from. The shoots I find will easily unite either by inarching or grafting. This year I have planted one *B. sanguinea* out of doors. The white *B. suaveolens* I have bloomed some years in the open border.

RHODODENDRON ARBOREUM.—Both the white and the rose flowered varieties are found in the native habits, to be confined to the single mountain of Sheo-pore, among those which I had an opportunity of visiting during my sojourn in Nepal, occupying the *very summit* of it, at an elevation of not less than ten thousand feet above the sea. I observed a considerable number of plants, but it appeared to me that those with rose coloured flowers were by far the most common, they attain the size of *very large forest trees*, and are noble objects at all times. They blossom in April and the beauty of them surpasses description, the ample crown of the trees being entirely covered with bunches of large and elegant blossoms. The common red-flowered or parent species is likewise found on the above mentioned mountain, but it is less frequent there than in lower and warmer situations. The two varieties above named are much more hardy than the crimson-flowered kind.

DR. WALLICH ON INDIA PLANTS.

DAHLIA SHOW AT HORSHAM.—On Tuesday, August 23rd, a splendid Exhibition of Dahlias is to take place at Horsham, Sussex, which will be open to all England—each grower is to show his flowers in stands, provided by himself; containing thirty six blooms, and not deeper than two feet six inches, nor contain more than five rows. The first prize is to be a beautiful case of Ivory-handled Knives and Forks, similar to the one given at Vauxhall in September last. The entrance is, up to the 11th. of August ten shillings, and from that time to the 20th. one pound. W.

HYDRANGEA HORTENSIS.—In the garden adjoining to the Workhouse at Holt, in Norfolk, there is growing a magnificent Hydrangea, which is upwards of five feet in height and near thirty in circumference it generally produces every season from 400 to 500 large heads of flowers which create a most beautiful effect, some being of a fine blue, others rose, and others white.

A STAR IN THE EAST.

ON SEEDS AND BULBS OF VALUABLE PLANTS TO BE DISPOSED OF.—Having been a subscriber to your work from its first projection, I avail myself of that channel to state: Dr. John Lhotsky, a member of the Botanical Society of Bavaria, has consigned home, through my agent at Sydney, New South Wales, a collection of rare seeds, made by him from the Australian Alps, a country never before visited by any traveller, as well, from other remote parts of this interesting country—together with a number of bulbs of the gigantic Lily, (*Doryanthes excelsa*), the Cabbage Tree, (*Corypho australis*), considered by him of great value to the practical gardener or amateur collector. They are now to be disposed of, and I should be glad to know from you the best mode to be adopted for the sale of this collection, the notice of which in next number, may draw the attention of any one disposed to treat for them. They are preserved with great care, and will be found to possess entire their germinating power.

Post paid applications may be made to the Conductor of the *Floricultural Cabinet*, who will give the address of the Gentleman, resident in London, who possesses the seeds and bulbs.—CONDUCTOR.

The Bath Horticultural Society will give upwards of £60 in plate at their last show in September, as extra prizes for Dahlias, open to all England—this is doing things with a spirit.

The spirited proprietor of the Bristol and Clifton Nursery, Mr. Miller is going to give two or three Horticultural fetes, at which a considerable number of prizes will be given by him for flowers, fruit, &c.

SOUTH LONDON FLORICULTURAL SOCIETY.

THE second Flower Show for the year 1896, of the South London Floricultural Society, was held at the Surrey Zoological Gardens, on Tuesday, June 14th; when from the fineness of the weather, the gardens were crowded by a large assemblage of rank and fashion; the Flowers and Fruit were arranged in five large tents, and were of the finest description; the splendid band of the Coldstream Guards occupied for the first time a new orchestra built for the occasion; the Hungarian singers, sung National, Russian, and Tyrolean airs; a peal of harmonic bells were placed upon the island which played alternately with the band. Amongst the distinguished visitors were the Duke and Duchess of Sutherland, the Duke and Duchess of Leinster, the Duchess of Marlborough, the Earl and Countess Stanhope, Lord and Lady Farnborough, Viscountess Mahon Lord Adolphus Fitzclarence, Lord Prudhoe, Col. Lincoln Stanhope, Mrs. Marryatt, Lady Kerrison, and the Persian Princes. There was nearly 15,000 visitors. Prizes were awarded to the following growers:

CLASS I.

1. For the best collection of Miscellaneous Plants, not exceeding 50 pots..The Large Silver Medal—Messrs. Chandler, Wandsworth Road. 2. For the second best ditto..The Middle Silver Medal—Messrs. Young, Epsom. 3. For the third best ditto..The Small Silver Medal—Mr. Fairbairn, Clapham. 4. For the best collection of Geraniums in 18 varieties..The Large Silver Medal—Mr. Gaines, Battersea. 5. For the second best ditto..The Small Silver Medal—Mr. Hill, Hammersmith. 6. For Calceolarias, in collections of 12 pots..The Middle Silver Medal—Messrs. Young, Epsom. 7. For Roses, in collections of 50 varieties, in trusses of one stem..The Middle Silver Medal—Mr. Rivers, Sawbridgeworth. 8. For the second best ditto..The Small Silver Medal—Messrs. Young, Epsom. 9. For Heartsease, in stands of 100 varieties..The Middle Silver Medal—Mr. Gaines, Battersea. 10. For the best collection of Cut Flowers..The Middle Silver Medal—Mr. Rivers, Sawbridgeworth.

CLASS II.

1. For the best collection of Miscellaneous Plants, not exceeding 36 pots..The Large Silver Medal—Mr. Redding, Gardener to Mrs. Marryatt, Wimbledon. 2. For the second best ditto..The Middle Silver Medal—Mr. Curtis, gardener to J. Alnutt, Esq., Clapham. 3. For the third best ditto..The Small Silver Medal—Mr. Sadler, Gardener to Mrs. Fisher, Denmark hill. 4. For Geraniums, in collections of 12 varieties..The Middle Silver Medal—Mr. Atlee, Stockwell. 5. For Calceolarias, in collections of 8 pots..The Middle Silver Medal—Mr. Atlee, Stockwell. 6. For Roses, in collections of 25 varieties, in trusses of one stem..The Middle Silver Medal—Mr. Redding, gardener to Mrs. Marryatt, Wimbledon. 7. For Ranunculus, in collections of 12 varieties..The Middle Silver Medal—Mr. Stockwell, Walworth Common. 8. For Heartsease, in stands of 36 varieties..The Middle Silver Medal—Mr. Early. 9. For the best collection of Cut Flowers..The Middle Silver Medal—Mr. Redding, gardener to Mrs. Marryatt, Wimbledon. 10. For the second best ditto..The Small Silver Medal—Mr. Sadler, gardener to Mrs. Fisher, Denmark hill.

CLASS III.

1. For the best collection of Miscellaneous Plants, not exceeding 20 pots..The Large Silver Medal—J. F. Young, Esq. 2. For Roses, in collections of 18 varieties, in trusses of one stem..The Middle Silver Medal—Mr. Salter, Shepherds Bush. 3. For Ranunculus, in collections of 12 varieties..The Middle Silver Medal—Mr. Crowder, Broad Street. 4. For the second best ditto..The Small Silver Medal—Mr. Thornhill, Hackney. 5. For Heartsease, in stands of 24 varieties..The Middle Silver Medal—Mr. Salter, Shepherds Bush. 6. For the second best ditto..The Small Silver Medal—Mr. Ledgard, Hammersmith. 7. For the third best ditto..The Small Silver Medal—Mr. Bernard, Buxton Road. 8. For the best collection of Cut Flowers,—buddy..The Small Silver Medal—Mr. Salter, Shepherds Bush.

OPEN TO ALL CLASSES.

1 For the best Specimen Plant..The Large Silver Medal—Mr. Lone, Gardener to Horsley Palmer, Esq. 2 For the second best ditto..The Middle Silver Medal—Mr. Redding, gardener to Mrs. Marryatt, Wimbledon. 3 For the third best ditto..The Small Silver Medal—Mr. Dickson, Acre Lane. 4 For the second best ditto..The Middle Silver Medal—Mr. Redding, gardener to Mrs. Marryatt, Wimbledon.

FRUIT.

1 For the best Queen Pine..The Small Silver Medal—Mr. Andrews, South Lambeth. 2 For the best Dish of Strawberries..The Small Silver Medal—Mr. Lone, gardener to Horsley Palmer, Esq. 3 For the best Bunch of Grapes..The Middle Silver Medal—Mr. Chapman, Vauxhall.

VEGETABLES.

1 For the best 6 sorts of Vegetables..The Middle Silver Medal—Mr. Conway, Fulham Hurlingham, Fulham. 2 For the second best ditto..The Small Silver Medal—Mr. J. Gard, Camberwell.

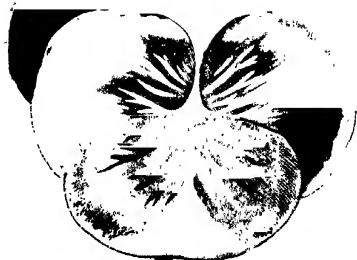
REFERENCE TO PLATE.

The Pauseys in the plate of the present number are seedlings raised by Mr. Barratt, Nurseryman, Wakefield, who will give notice by advertisement when he can supply plants of the kinds. They rank among the most superb sorts yet raised.

Mimulus Ranhyania, This very splendid flowering *Mimulus* was raised by the gardener at the Dowager Duchess of Newcastle's, Ranby Hall, near Retford. The stock was purchased by Mr. Clark, Nurseryman, Retford, and a plant of it we saw in bloom, very far exceeded anything of the kind we ever saw, being about three feet high and spreading proportionably.

FLORICULTURAL CALENDAR FOR JULY.

PLEASURE GROUND, FLOWER GARDEN, &c. — These annual plants that have not yet been transplanted out, should now be done, in cloudy and showery weather, keeping as much earth to their roots as possible, now supporting those with sticks that require it. Tender annuals may now be turned out into the flower borders; they should be refreshed at least once a day with water, and if the sun be very powerful they will require to be shaded, till they have taken fresh root; those that remain to flower in pots, must be frequently supplied with water, repotting, &c., as they require it. Finish transplanting perennial and biennial plants, sown in spring. Double Sweet Williams should now be laid. Those Carnations in pots require particular attention in keeping them well supplied with water, and to support the flower stems by tying them to neat green sticks with bass;—pipings of the young shoots may still be put in; those cut at the second or third joint make the handsomest plants; they should be kept shaded from the hot sun, otherwise they will soon get scorched and dried up: they should be finished layering by the middle of the month. Pinks may still be propagated by pipings as in June. Auricula plants in pots will require a little water frequently in hot weather, taking care not to pour it on the heart of the plant; all dead leaves should be removed; if any of the plants are attacked with the green fly, they should be smoked with tobacco. Transplant seedling Auriculas and Polyanthus, and keep them in a shady place. Pansies may still be propagated by slips of the young shoots; the seed should be sown either in pots or borders, in a shady place, and well supplied with moisture. All sorts of Roses (with the exception of the China and its varieties,) should now be budded. Many sorts of bulbous-rooted plants, as Ranunculus, Tulips, Anemones, &c., which will now be past flowering, and their leaves decayed, should be taken up, well dried, cleaned, and the offsets separated, and put in a cool airy place, till the planting season again commences. The double scarlet *Lychnis*, and such like plants, should be propagated by cuttings. Dahlia cuttings will easily take root if placed in a brisk heat. Continue to cut box edgings, and hedges, where it was not done last month. Where it is desired to save seed of Ten Week, Russian, or German Stocks, only allow those single ones to remain, the flowers of which have five or six petals; if such are reserved they will generally produce double flowering plants. Towards the end of the month, Roses may be budded: the first week in August is however considered better. An article is sent on the subject for that month.



C

D

THE FLORICULTURAL CABINET,

AUGUST 1st, 1836.

PART I. ORIGINAL COMMUNICATIONS.

ON RAISING EXOTIC PLANTS FROM SEED.—By J. C. H.

A CORRESPONDENT in the *Cabinet* having recently asked for information on sowing Geranium seeds, induces me to send the following article on raising exotic plants from seeds in general, the method is the result of long and successful practice:

I premise the article by saying that it is necessary to be provided with a stock of soils of different sorts. (The excellent article in the July Number furnishes a description of them.) Whatever mould is wanted for this purpose, should be moderately dry, and finely sifted before used: the sifting should be performed with two sieves, one of which must be particularly fine, to procure surfacing and covering mould for the finer seeds.

The month of February is the most proper season for sowing these seeds; as they soon vegetate at this time, and make strong handsome plants, by the latter end of the ensuing summer; which is an object of the first consideration in this business: for when sowed later, the greater part, and more especially the tenderer species, will be too weak to part into separate pots; and therefore are liable to suffer by damps and rottenness, during the winter following, by being left in the seed pots; and should they be attempted to be removed at this late season, which some will do sooner than suffer them to take their chance as they are, they seldom prove more fortunate. Whereas those sown about the latter end of January, or any time in the following month, will for the greater part be fit to pot separately in May or June; and therefore have the whole summer to establish themselves; and even such of them as are more slow, will have at least sufficient strength and woodiness to withstand the casualities of winter, should they be left in the seed pots, much better than the soft herb-like produce of later sowings.

As an exception to the above rule, may be mentioned *Erica*, and such like seeds which are at first slow of growth, and produce firm, woody, though perhaps small stems : these, from their nature not being so liable to suffer from damp as gross, quick growing articles, may be sown with every prospect of success in the Autumn. Indeed for heaths, I prefer a September sowing, towards the end of the month. If the seeds are good they soon vegetate, and will acquire sufficient strength to carry them through the winter ; and being so small, they stand more detached ; therefore they do not damp or rot each other : whereas if they are sown in spring, they are not fit for potting off until it is too late in the autumn to attempt it, and consequently they are left for the winter in their seed pots : when from their increased size, they will have become so close as to inevitably injure each other, perhaps, even to the destruction of the whole crop. Those sown in the autumn are not of sufficient size to be potted off until July or August in the ensuing year.

The day being resolved on, let a quantity of the different sized pots be filled with the mould best suited to the nature of the seed to be sown ; as on other similar occasions, it must be pressed down pretty tight to about half an inch below the rim of the pot, adding more if requisite ; on this may be sown, any of the coarse large seeds, which should in general be covered one fourth, or half an inch, according to their size ; but if the seeds are small and curious kinds, such as heath, &c. a little more nicety is required. For these, the pots must be surfaced with some very fine mould, in depth about a quarter of an inch, which will raise it to the same distance below the rim ; on this, it being perfectly level, and firm, let the seeds be sown neatly, and even ; then with the same fine machine, sift a very light covering over them, and press it gently down with the hand. If the parcels of seed are small, two, three, or more kinds, may be sown distinctly in the same pot, distinguishing each by a small painted stick, to be set perpendicular in the centre of the pot with the name or number inscribed thereon.

The sowing being finished, give the pots a gentle watering with the rose of a water-pot, to be repeated three or four times, until the mould therein becomes sufficiently moist for vegetation ; let them be then set in the most convenient, dry, airy part of the greenhouse, where they can be regularly attended, as to watering and weeding. Watering they will require at least once a day, in a greater or less degree ; for if they are not kept properly moist, the seeds will not by any means vegetate freely, if at all ; however, the other extreme is to be studiously avoided. The weeds should be regularly pulled out

before they attain any size; else, besides the top smothering the young seedlings, which may have started, the roots, in getting them out afterwards, not only disturb them, but also the remaining seeds that may be perhaps on the point of bursting their embryo; by which means, it not unfrequently happens in places where this strict attention is not paid, that the greater part of the crop is thereby destroyed.

As the spring advances, it will be necessary to lay a few sheets of strong paper over the pots, for two or three hours in the middle of the day, if the weather happens to be clear, and the sun acts forcibly on them; particularly those in which the finer seeds are sown, in order to prevent the surface getting over dry, and powder like; or otherwise, if the mould happens to be pretty moist, it is liable to form a mossy crust, which might be particularly injurious, by preventing the young seedling ushering itself into the light, from penetrating through it with that ease which is requisite.

It is not advisable to keep these small kinds of seed too long unsown, therefore, foreign seed should for the most part be sown as soon as received, on account of the length of time they are in general on their passage home; yet there are some, such as beath, and other firm, hard seeds, which will keep very well for a year or two; a part of which may generally be reserved for future sowings.

In this manner must they be managed until the beginning or middle of June, at which season the greenhouse will in general be found to be too drying a situation for them; they must therefore be removed, particularly the larger kinds of seed, to some shady border, where they can be plunged nearly up to the rim in coal ashes, or sand; which will greatly assist to keep them in a proper moist state: here, all the care they will require is to be kept clear from weeds, and regularly watered, morning and evening if requisite; but never when the sun shines strong upon them, lest the tender leaves of the young plants should get scorched; it will be also necessary to have a careful eye, daily for slugs, worms, &c., otherwise they will be liable to suffer much from the depredations of these insects, particularly in the evenings. Should there be any fine light covered seeds, such as heathis, &c., they must be set in such manner, that they may be covered with a common hotbed frame, in a moderately exposed situation, so that in case of sudden or heavy showers which might otherwise wash the seeds out of the pots, they may be occasionally covered to preserve them from such violence; yet they may be exposed to gentle rains at time, but never long together, lest they become over wet, which would soon perish them in this tender state. They will likewise require to be shaded with a mat in clear weather, or even a double mat in the very hottest season.

Early in July, many of them will be growing pretty fast, and will require to be potted off into separate pots; as it is much preferable to do this while they are young and small, before their roots become matted together, than it is afterwards; besides, that they have a considerable portion of the growing season before them to establish themselves, before the winter stops their career.

In performing this work, care should be taken to match the pot to the size of the plants, and nature of the species to be potted; as overpotting these seedlings might be of the worst consequence. The largest size pots I would recommend for this use, (unless the plants be particularly strong) are what are called small sixties, or halfpenny pots: but for heaths, and such like very small articles, a still less size is to be provided; these are known by the very appropriate name of thimble pots, on account of their diminutive size.

Being provided with a quantity of these, and the different sorts of mould properly prepared, that may be requisite for the kinds to be done, proceed to part the plants; in doing which, let the nicest care be taken to preserve as much roots, and earth to each plant, as can possibly be done without injuring the others; let them be neatly potted in the proper mould, which must be gently pressed to the roots, that they may the sooner incorporate themselves with it. In this manner, pot as many as may be thought sufficient for the present purpose, at the same time allowing a few for mischances. They must then be well watered, in the manner already directed for seedlings, and set in a cool frame, on coal ashes well rolled, or any other hard substance that will prevent the worms getting so freely into them, as they otherwise would. The lights must be kept constantly on, and close, for a few days, more or less, as circumstances may require; and it will be also necessary to shade them very secure from the strong rays of the sun at first; however in a little time, the lights may be taken off at night, if fine, having them on, and shading in the day, until by degrees, the plants are so hardened as to be able to withstand the full power of the sun; thus in the space of a fortnight or so, they will be fit to be set in the clumps along with the other plant.

This business should not be undertaken later than the middle of August; for if executed at a more advanced season, the plants will not time to establish themselves, and consequently will not succeed to the wishes of the proprietor; therefore, any that may remain in the pots, not strong enough to be parted by that period, should be removed into the greenhouse early in September, and there placed in their proper situation in that department until the spring following.

Indeed there are some seeds, which absolutely require to be kept for that term before they will vegetate; whereby it becomes necessary to examine with care when removing them to the greenhouse, whatever pots have not by that time shown any signs of vegetation, and those which are found alive must be saved, and treated in the same manner as fresh sown seeds, those which have failed should be emptied, and taken to their place at once.

The pots set in the house will require nearly the same treatment as usual, viz.; to be kept perfectly clear from weeds, and regularly watered. Water should now be given in the morning only, as any damps it may occasion, will have time sufficient to evaporate in course of the ensuing day; whereas, if given in the evening, it causes a chillness about their tender leaves, and from the necessary closeness of the house at night, not having free exhalation, it may do a material injury; not only to the seedlings themselves, but likewise to the adjacent plants by tending to increase the general damp of the house.

When first housed, if the weather prove clear, they must be shaded for two or three hours at mid-day; but this practice must not be followed too closely, as the influence of the sun is but seldom too powerful for them at this season, and during the winter months, the more sun they receive the better: it is also necessary to be particular in observing that no slugs, snails, or any other insect, harbour about them, as before mentioned; otherwise, they may perhaps destroy all the hopes of the season, in one night; which is to them, as well as to most other insects, and animals of prey, a convenient time for their depredations.

By a careful attention to the above rules, adapting them as place, time, or circumstance will permit, one may expect in the ensuing spring, to see their remaining seeds of last season's sowing, begin to vegetate very fast; that is, such of them as still have the germ of life sound, which can at any time be easily ascertained. They will, when grown to a proper size, require to be parted, and potted separately in the manner I have before directed; but as it is there noticed, they must not be permitted to grow too large before this operation is performed, on account of the roots being liable to interweave with each other, and by that means render it more difficult to be well executed; besides, it may be injurious in another manner, by occasioning the plants unavoidably to harbour damps, slugs, &c., the evil tendency of which has been already, I presume, sufficiently explained.

There is one thing necessary to be remarked before I have done with this article, which is, that those seeds received from New South

Wales in general, as well as many others of the South Sea Islands, and also several, particularly of the larger sorts, from the interior parts of the Cape of Good Hope, from the warmer countries of tem-America, and in short, any of the climes in, or approaching the same latitudes, although the plants when grown will flourish and come to perfection in the greenhouse, yet the seeds will require the aid of a hotbed when first sown, to set them in vegetation, and until they are parted and established in their separate pots, then to be hardened by degrees to the open air; from which time they may be treated as directed for the more hardy and common sorts of seedlings.

London, July 6th, 1836.

ARTICLE II.

OBSERVATIONS UPON PREPARING BORDERS AND PLANTING SUITABLE PLANTS IN A CONSERVATORY.

BY MR. THOMAS ROGERSON, DALE COTTAGE, WATERFORD, IRELAND.

PERCEIVING that Mr. Goodall gives an excellent list of conservatory plants in the July Number of the *Cabinet*, and having had the management of one for some years, both in its construction, planting, and subsequent management, I herewith send as a continuation of Mr. Goodall's article, some observations upon the preparation of borders, planting, &c.

Plants growing in the conservatory fashion, by their unconfined luxuriant habit, have a much more natural appearance than when growing in pots, forming as it were a wood in miniature, of the most rare and beautiful productions of foreign climes: productions which when properly managed, far exceed in delicacy and elegance any thing ours will produce. Besides having a strong vigorous growth, which could not well be expected from them in pots, they consequently produce their flowers with more elegance, and much greater abundance: which is the chief object of the florist, and likewise affords to the curious investigator of nature, an opportunity of analyzing the entire process in many plants, of which in other cases he could have formed only vague conjectures, or be obliged to rest solely on the authority of others: which, however creditable, is not so satisfactory as ocular proof.

Thus a conservatory properly planned, planted, and afterwards well managed, stand forward as a department merely intended for recreation or study, a conspicuous instance of the perfection to which horticulture has arrived in this country, and the improving spirit of the nobility and gentry in general.

The house should always be built in the early part of summer, that the work may have time to settle and season before the plants are finally arranged therein. The pit also, in which they are to be planted, should be filled some time before on the same account. For which purpose, the following composts should be used in manner here specified.

Having the pit first emptied to its proper depth, which should be at least two feet and a half, spread a sufficient quantity of broken tiles, pots, or coarse gravel in the bottom, to make a floor of four or six inches, for the purpose of keeping it as well drained as possible, and over this, a layer of the coarsest siftings of the peat, about six or eight inches thick, to prevent the finer mould filling up the interstices in the under stratum. This done, prepare a quantity sufficient to fill up the remainder of loam and peat; they must be well mixed together and chopped rather fine, about equal quantities of each is a good proportion, and if about one-fifth of fine sand were added, it would benefit the compost materially. The whole should be cast up in a heap, so that any large lumps or tufts of roots may be the more easily raked off, which is all the preparation it requires.

The mould being prepared as above, proceed to fill up the pit with it, and observe to raise it considerably above the kirbs of the pit to allow for its sinking; also to make it as level as possible, that it may settle the more regular. There will likewise be a number of smaller detached places to be filled, which are intended for the reception of the different climbers; such as a border along the back wall, against trellis work, or pillars in the centre of the house, and the piers between the front and end upright sashes. These should generally be filled in the same manner as the pit; unless in a case where there is a small space intended to be occupied by a single plant. There, the upper stratum should be composed entirely of such sort of earth, as may be thought most suitable to the species of plant proposed to be planted therein.

This business should not be deferred later than the middle of July, so that the earth may have sufficient time to settle, and the plants to establish themselves therein before winter. Note, the top or sloping lights of the roof should not be put on as yet; the free action of the atmospheric air, being particularly necessary to purify and assimilate the component parts of the soil.

When the mould has sufficiently settled and is judged fit to receive the plants, which will be in about a month, they should be planted without further delay; in performing which it will be requisite, first to set each plant on the surface, in the place wherein it is intended it

should stand, that an opportunity may be had of changing any of them to situations in which it might be thought they would have a better effect.

In thus regulating them it should be a leading principle to pay a strict attention to variety; endeavouring to mix the different shades and foliage in the most agreeable and elegant manner. The future growth of the plants must also be considered, more than the present size, and the tall growing species arranged in the hindmost rows, and the more dwarf kinds towards the front: for although some which require to be in the back rows may at present be small plants, they will soon outstrip the others when planted out and encouraged. Care must be taken likewise to allow each species sufficient room according to its supposed natural growth.

Having arranged the plants in the best manner, according to circumstances, provide some of the different earths in separate baskets, so as to be enabled to add a portion to the roots of each plant, of that particular earth in which it seems to thrive the best: a precaution very necessary, as the transplanting these tender plants from a stronger to a weaker soil, or *vice versa*, might turn out very injurious: and yet the compost recommended as the groundwork for filling up the pit, is perfectly congenial to the whole when they attain a strong vigorous growth, at least to such as are particularly adapted for conservatories, as Botany Bay plants in general, Cape plants, except heaths and Proteas, which I think do better in pots; and in short the full list of what are termed greenhouse plants, with the above exceptions, which I doubt not might be done away with by allotting houses particularly to these genera.

At all events, the plant chosen should be in perfect good health, as I think the pit of a conservatory among the worst places for the purpose of recovering a sickly one. The hole should be made sufficiently large to admit, with the ball of roots, any additional earth that may be deemed necessary. Let the plant be turned carefully out of its pot, and set upright in the hole, some of the favourite soil being previously put in; more of which should be added round the roots, and over that the compost of the pit may be levelled, and the whole pressed pretty tight to the roots.

In this manner let the whole be planted, but observe that they are not deeper in the mould of the pit, than they were in pots. Many of them being extremely liable to canker and mortify, in the lower part of their stems when planted too deep, particularly the tenderer sorts. They should all be carefully and regularly supported with neat sticks, and for the larger species pretty strong ones should be

used, to prevent the winds from loosening them in their situations. After which, let them be thoroughly watered with a moderately coarse rosed water-pot, to settle and bind the earth to their respective roots.

If this work is done at the proper season, they will make considerable progress before the cold of winter puts a stop to vegetation; whereas if deferred until late in the year, they for the most part remain dormant three or four months: yet they will even then, (provided they have not been injured by too much wet or otherwise,) begin to shoot out vigorously, and soon form the most beautiful heads, and produce their flowers in luxuriance.

The pit and trellis work being completely furnished, and time allowed for the water to soak through the roots, and mould to settle, the surface thereof should be carefully smoothed over with a fine toothed rake, or the hand, and rubbish of every kind cleared neatly away. Then let the other parts of the house be decorated in the best manner, with whatever plants may be remaining; I mean any shelves or benches that may be over the flues, or in any other part of the house; also the window stools, if there is room sufficient to set pots thereon: these if judiciously filled, with handsome growing and flowering plants, will add very materially in elegance to the contour of the whole group; besides, by this management, the house may be made to answer the two-fold purpose of a greenhouse and conservatory, as those plants which circumstances may render desirable to be kept in pots, can be placed to so much advantage on the benches of this department; as also in the Spring, any pots of forced flowers, such as roses, mignonette, lilac, &c., &c., when fit to remove from the forcing house; and if a few pots of china rose, or any others of a similar nature in flower, were set occasionally on the surface, or plunged in the pit in the most vacant places among the other plants, they would considerably improve their appearance; and being in pots so convenient to be plunged, or removed at pleasure, there is no danger of their injuring either the roots or heads of the standard plants, when regularly attended to, and care taken in plunging them not to raise the mould taken out of the holes, too high for the stems of the adjoining plants.

ARTICLE III.

ON THE CULTURE OF SOME SPECIES OF FOREIGN FERNS IN
THE OPEN AIR IN THIS COUNTRY.—By J. R.

IN my letter to you of the 2nd of June, 1835, on the cultivation of Foreign Ferns, I mention that I was about to try several species out of doors, intending them to remain during the winter.

I now acquaint you with the result.—On the side of a well sheltered bank, I dug away the earth to the depth of from twenty inches to two feet—on the bottom I laid loose broken stone about six inches thick, and filled up again with soil composed of light heath mould and bog earth in equal quantities. The plants being taken immediately from the stove to the open air, did not appear to do well, the foliage mostly dying down; but the roots flourished in the soil, running amongst the broken stones, and late in the autumn throwing up fine healthy shoots.

In the middle of November, I covered over the bed with fallen leaves, and slightly shaded it with spruce fir boughs. In April this year I uncovered the soil, and found several of the Ferns then making their appearance, and the foliage of a few of them had not died off. The following is a list, both of such as are now doing well, and of those which were killed by the cold. Considering the long and severe winter, it is surprising more did not suffer.

The following are now in full growth :—

Woodsia perenniana.	Corvelea sensibilis.
———Struthiopteris germanica.	———obtusiloba.
———pennsylvanica.	Woodwardia radicans.
Aspidium Marginale.	Cystoa atomarrium.
———achrostichoides.	Aoliantum podatum.
———bulbiferum.	Dicksonia pilosiuscula.
Asplenium deneum.	Cesmunda Cinnamomea.
Pteris serrulata, (rather weakly.)	THE FOLLOWING DIED.
———longifolia.	Aspidium molle, (one plant is just alive,
Polypodium elatum.	but very weakly)
Aspidium æmulum. (so named to me,	———patens.
but I am in doubt of the correctness.	Blechnum Corcovadense.
Asmunda interrupta.	———braziliense.
Aspidium auriculatum.	Polypodium pectinatum.

If these remarks are worthy your acceptance for the *Floricultural Cabinet*, I shall be very glad to communicate any further results of my trials, as I have now placed out above twenty other species, hitherto deemed stove plants, and have no doubt of succeeding with many of them. If I recollect rightly, Mr. Ashford promised some remarks on British Ferns, I hope he will not forget them.

June 6th, 1836.

We shall esteem it a great favour to have a continuance of Mr. R's remarks, at his convenience.—EDITOR.

ARTICLE IV.—ON THE CULTURE OF ERYTHROLINA CONSPICUA.
(SYNGENESIA CEQUALIS.)

BY MR. JOSEPH PLANT, NURSERYMAN, CHEADLE, STAFFORDSHIRE.

HAVING noticed in the *Cabinet*, a query, as to a successful method of cultivating the *Erythrolina conspicua*, I was anxious to have sent you the result of my experience in the culture of that plant, but numerous engagements having prevented me, for a few weeks, from drawing up the detail of management, I was glad to see, in a subsequent number, that some person had given a mode of treatment, which I, at a cursory view of the article, judged would render mine unnecessary. On a perusal, however, of the article given in the *Cabinet*, I find it so unsatisfactory in some particulars, that I could no longer hesitate about sending my mode of culture.

The *Erythrolina conspicua* is decidedly a biennial plant. The seeds should be sown in February in a pot, and be plunged in hot-bed frame, and remain there until the plants have produced two rough leaves. They should then be carefully taken up, and one plant be placed in a sixty-sized pot, using a good rich loamy soil, then to be put into the hot-bed frame again, and to be shaded for a few days. When the pots are filled with roots, shift the plants with balls entire into pots a size larger, replacing them in the frame; when the roots begin to push through the holes of the pots, shift the plants again in a size larger, and place them in a pit or cold frame where they can be protected at night. They will require another shifting into twelve sized pots, having them well drained, and be replaced in the pit or frame, after which they will not need covering at night.

The plants must always be kept moderately moist, but not saturated. During winter they must be kept in a cold frame or pit, where they can be covered with glass lights, and be protected in very severe weather. Early in May following they must be turned out into the open border with balls entire, and they will produce a profusion of fine yellow blossoms, comporting in a high degree with the specific title it bears.

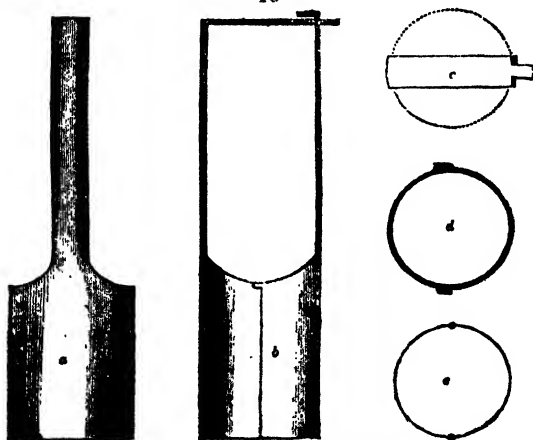
ARTICLE V.—DESCRIPTION OF AN INSTRUMENT FOR TRANS-
PLANTING SEEDLING PLANTS, &c.—BY AN OLD SUBSCRIBER.

HEREWITH I send you a description and model of an instrument which I have had made for transplanting seedlings. It has been in use all the season, and so fully answers the purpose that scarcely a single seedling plant has failed to get established, though the weather was so dry and hot.

I find it is less trouble to sow the seeds of many sorts singly, than to scatter them in, and afterwards to thin them out. I conceive that it is bad in principle to thin them out, because the rootlets and spongiolets must be greatly injured by the operation. But by sowing singly the plant remains undisturbed, and the rootlets and spongiolets get fully established in the soil, and by my mode of transplanting, the roots and soil are removed entire.

I sow my seeds by means of a frame made of mahogany; for a 48 sized pot, I use one $4\frac{1}{2}$ inches in diameter, in the centre of which there is a conical peg a quarter of an inch diameter, and the same in height, and on the circumference of a circle $2\frac{1}{2}$ inches diameter, are six others. When the soil is levelled at the surface, the frame is pressed down upon it, and on removing it, seven holes will be made $1\frac{1}{2}$ inches apart, into each of these I put a *sound* seed; six out of the seven (frequently the whole) will vegetate, if properly managed after sowing, and all may be successfully transplanted by means of the transplanting instrument. One inch and three eights is a very convenient space for seedlings to grow in, it leaves just room enough for the instrument, $1\frac{1}{2}$ inch diameter, to pass betwixt them. A transplanter a little larger, say about two inches diameter, would be exceedingly useful in removing cuttings of plants which have taken root. In fact an instrument on this principle might be made strong enough to remove a tree of ten years' growth, with as much ease as a loose block of stone. The drawing (Fig. 16.) is half the full size.

16



a. Is one of the halves; b. the two halves together; c. the cross arm; d. the top of the cylinder; e. the bottom of ditto.

The transplanter consists of a cylinder in two halves, made of thin sheet steel one and a quarter inch in diameter inside, by one and three quarters high; to each half is attached an upright arm, one of which is bent at right angles, and extends across so as to receive the arm of the other half of the cylinder. In the end of this cross arm there is a cleft to receive the upright of the other arm, which slides up and down it. To the upper part of one half of the cylinder are fixed two cleats, one close to each edge; in the other half corresponding studs which fit into them. By means of these and the cleft in the cross arm, the two halves are kept from shifting sideways, and a gentle pressure keeps them together. In using the instrument, put the two halves together, push them into the soil, on withdrawing them a hole will be made to receive the plant. Separate the two halves, push each down singly by the side of the plant, press them together and withdraw the instrument, and with it the plant with all the soil about; then transplant the same to the hole previously prepared for it. On removing the two sides of the instrument separately, the plant will be found with the earth about it undisturbed.

Messrs. Holtzapffel and Co., 64, Charing Cross, London, made two instruments for me, one with the arms rivetted to the cylinder, the other with each half of the instrument in one piece. The latter is the least expensive mode, and the most simple in its construction. Sheet steel appears to be the most suitable material, but tin would do, although not so durable. I have sent you a model of the instrument in tin, and no doubt suitable ones can be made in Sheffield at a very moderate cost.

(The instrument would be useful in removing plants from the open border, if made a suitable size.—CONDUCTOR.)

ARTICLE VI.—ON THE CULTURE OF THE TREE ROSE.

BY ROSA.—(*Continued from page 82.*)

THE most certain time to bud the rose is from the beginning to the end of August, the sap then being in full force, more especially so if the weather be moist after a droughty season; whether early or late in the month will be pointed out by the season being an early or late one. The desideratum in the plant is, that the bark will most easily separate from the wood, exhibiting at the inside a free supply of sap.

If the season be droughty the sap will not flow so freely, unless a good soaking of rain falls, or the stocks have a free watering a week previously to budding, and if this be repeated it will be an additional stimulus.

If it happens that there is cloudy day to perform the operation of budding in, take advantage of it; if not, to bud towards the close of the afternoon will be the best part of a sunny day. I have budded ten kinds of roses upon one stock, all of which succeeded and have bloomed most singularly beautiful. Care was taken to have those kinds which were of a similar habit in growth, for a vigorous growing kind and a weakly one are unsuited together; the former would by its luxuriant growth prevent the other for having due support, and eventually would, in a few years, perish.

In selecting a bud for insertion, choose a strong and healthy shoot, cut away that part which has pushed since June, and from it select a bud for the desired purpose. A plump one should be taken, that is; it should be full, round, quite closed, (i. e. not pushed). Such a bud may generally be had about midway up the shoot, the lower ones being more dormant, and the upper ones scarcely perfected enough. The bud is situated in the axillæ of the leaf.

The shoot having been cut from the plant, take it in the left hand, holding the thickest part inwards, then with a very sharp knife, begin to enter the shoot about three quarters of an inch above the bud, cutting downwards about half way through the shoot, and bring out the knife about the same distance below the bud, in which case the bud is contained in the portion cut off, "which is termed a shield," and is formed as a segment of a circle. Then take the shield betwixt the finger and thumb holding the bud downwards, that is, in a different form to that it had grown in, press the shield so as to be held firmly, then gently twist the upper end of the shield, "which is nearest you," and this will loosen the wood from the shield. The wood must be taken out with the right hand, whilst the shield is held by the left. The separation of the wood from the shield must always begin at the upper end as it had grown. It will then be necessary to see that no vacuum be in the inside of the bud, if there be, the root of it is gone, *and it will not grow*, though the bark might unite, no shoot could be produced. If there be no hollow inside the bud, it is fit for use. If the shield does not separate freely from the wood, the shoot might be soaked for an hour, and it would assist the shield and wood to separate more readily. The edges of the bark of the shield must be quite smooth and clean, on no account to be left jagged. The leaf, in the axilla of which is the bud, must have one half of it cut away, for the evaporation of the whole would much weaken the bud, and rather prevent its growth. The shield having been thus prepared, lay it in water till the incision is ready for its reception.

In a former article I noticed that side shoots must be left to bud upon ; on the upper side of a shoot of the present year, an incision must be made through the bark an inch and a half long, the lowest point of the incision to be about a quarter of an inch from the trunk of the stock, that is, from the origin of the shoot. At the upper point of the incision already made, a cross cut must be made through the bark, as long as it will admit the shield readily under it. With the ivory end of the budding knife, proceed to open the edges of the bark at the upper part of the incision, and very carefully proceed downwards, which, if the tree be in a proper state, will separate readily. This being done, slip in the shield, and carefully force it down, so that all the shield may be inclosed under the bark, excepting about the eighth of an inch of the upper part of it, which must be left outside, and that portion must be cut across so as to make it fit to the inside of the cross cut in the incision, so that the bark of the shoot above the incision, and the bark of the upper part of the shield may come in even and close contact ; this is very necessary, because the first union takes place *there*, by the descending of the sap coming in contact with the top of the shield.

The bud being thus carefully inserted, *must not* be removed from its position ; immediately some wet bass matting must be bound tight round the stem, beginning at the bottom part of the incision, crossing the ligature front and back, and terminating above the cross cut. The bud and leaf must be left clear, but only just to peep out. Let the bass be secured at the top in a knot, and that to be at the opposite side of the shoot to the bud, in other words *behind it*. If the knot were made at the same side as the bud, it would hold wet, and be liable to damp off the bud in a rainy season. It is of advantage to shade the bud, which is easily done by taking a laurel leaf and forming it so, that by tying the ends together and cutting out a portion to fit it to the stock, it will form an arch over, and thus protect it from the injurious effects of wind, sun, or wet ; all of which should be particularly guarded against for a time, in order to secure certain success.

If it be desirous to have the name retained of each kind of rose inserted, this must now be attended to by affixing a sheet lead, or other label thereto, by means of copper wire, with the name or number to signify it.

Persons who have not been accustomed to budding, should previously experiment a little upon willow shoots, the bark of which easily moves, and affords facilities for such attempts.

If after budding, the weather should be drougthy, the stocks should have an occasional watering at the roots, which will greatly contribute towards success.

If a bud should fail and it be discovered in time, such a shoot may be supplied by inserting another bud.

Buds may be very successfully inserted into the main trunk of a stock; one or more buds may be put into it; the bud is found to succeed best about half way up the stock; the younger the stock the better it will succeed.

If the operation of budding has been properly performed, and the stocks suitably supplied with wet, from rain or otherwise, in about a month from the time of budding, the bass ligature may be taken away, and one tied round in a looseish manner. This admits the bark to swell, whilst it prevents the edges from being drawn open.

If the weather should be drougthy, the first placed ligatures must be kept too for six weeks, and in case of continued drought even till spring.

When the stocks have ceased growing, which will generally be the case by the end of October, the branches of the stock must be cut in order to strengthen them, and make them neat.

In shortening them, leave about six inches of each above the bud which has been inserted.

If the ground round the roots be covered a few inches deep, with some strawy manure, during winter, it will be of some service to do it.

No other attention is required till spring, excepting to have the stocks properly secured against winds.

I shall, therefore, have an article drawn up in time for the second season's management.

Note.—In preparing the bud, it is unnecessary to remove the bit of wood attached to the bark. Omitting to do so, saves trouble, prevents the bud from being damaged, and more than equally insures success. We beg to refer our readers to the article on budding, inserted in Vol. 2., p. 210.—CONDUCTOR.

PART II.

LIST OF NEW AND RARE PLANTS.

Noticed since our last.

1. **ACACIA PROMINENS**, Conspicuous Acacia, or Nepean Wattle. (Bot. Reg., 3582.) Natural Order, Leguminosæ. Linnæan Class, Polygamia; Order, Monœcia. This plant is a native of the barren forest grounds of New South Wales, in the neighbourhood of the Nepean River, where, producing a vast proportion of rich golden blossoms, it becomes an object of peculiar attraction, and at the same time diffuses a profuse fragrance around. It was introduced into this country some time ago, and is now cultivated at Kew; in the spring, it flowers most charmingly. It is a fine conservatory shrub, and the fine racemes of rich golden fragrant blossoms recommend it very strongly. The plant grows about ten feet high, spreading proportionately. *Acacia*, from *akazo* to sharpen; many species being thorny.

2. **AZALEA RAWSONII**, Mr. Rawson's Azalea. (Pax. Mag. Bot.) Rhodoracææ. Pentandria Monogynia. Within a few years there have been many fine hybrid Azaleas raised, both on the continent and in this country, but none to surpass the present variety. It was raised from seed by our respected friend Mr. Menzies, gardener to Christopher Rawson, Esq., Hope House, Halifax, in whose splendid and superior cultivated collection of plants, it bloomed this spring. Mr. Menzies supposes it to have been produced between *Azalea phœnicea* and *Rhododendron dauricum atrovirens*; from that circumstance it is very probable that it will prove nearly hardy. The plant merits a place in every collection of this tribe of beautiful flowering plants; the plant being the property of a gentleman, not only generally known as an ardent admirer of Floriculture, &c., but equally so for liberality and endeavouring to promote its interests, and for others to participate in such rational enjoyment, we believe it will soon be presented to the public, and plants to be procured of the Nurserymen. The flowers are nearly three inches across, of a fine rich scarlet crimson colour; the two upper petals numerously spotted with darker. Mr. Menzies cultivates the plant in equal parts of heath mould and well rotted leaf soil, to which is added a little of hazel loam. We saw his plants growing in a most healthy condition. *Azalea*, from *azaleas*, dry, arid, referring to its habitation.

3. **BEGONIA PLATANIFOLIA**, Platanus leaved. (Pax. Mag. of Bot.) Begoniaceæ. Monœcia Polyandria. This plant is a native of Brazil, and introduced by the late Robert Barclay, Esq., in 1829, from Brazil. The flowers have much the appearance of most of the species, a flesh colour edged with pink. It has bloomed in the Birmingham Botanic Garden, under the skilful management of Mr. Cameron. Begonia, in compliment to Michael Begon, a zealous promoter of Botany.

4. **BIFENARIA ATRANTICA**, Orange coloured. (Bot. Reg., 1875.) Orchidacææ. Gynandria Monœdia. The present neat flowering species bloomed last year in the collection of His Grace the Duke of Devonshire, at Chiswick. It is a native of Demerara. The flower spike rises about nine inches high, supporting about ten flowers. They are of a deep orange yellow, much and beautifully spotted with darker colour. Each flower is about three quarters of an inch across. *Bifennaria*, referring to the double strap that connects the pollen masses with their gland.

5. **CORRORIS FILIFOLIA**, Thread-leaved. (Bot. Mag. 3505.) A very neat and pretty flowering annual, sent into this country in the spring of last year, from Texas, by Mr. Drummond. It bloomed very profusely in the end of summer. The foliage and habit of the plant much resembles the *C. tenuifolia*, it grows about a foot high. The flowers are about an inch and a half across, the ray of the petals of a fine orange yellow, and the disk (or centre) of a dark blood colour, about a quarter of an inch across. It deserves a place in every flower

border. *Coreopsis*, from *Koris*, a bug; and *opsis*, resemblance, referring to the seeds.

6. *CRATÆGUS PLATAPHYLLA*, Broad leaved Thorn. (Bot. Reg., 1874.) Another handsome species growing in the fine collection in the London Horticultural Society's Garden. The plant grows vigorously, producing a fine foliage, of a deep rich green colour. The flowers are of a pure white, produced most numerously, much later in the season than the common Hawthorn. The fruit is of a dark purple colour, of a medium size, making a pretty appearance. *Cratægus*, from *Kratos*, strength; referring to the durability of the wood.

7. *CRATÆGUS PYRIFOLIA*, Pear-leaved Thorn. This plant is also grown in the Garden of the London Horticultural Society; it is a native of North America; the leaves are very large and pretty; the flowers are white succeeded by orange coloured fruit, the size of the common Hawthorn.

8. *EPIDENDRUM NIFIDUM*, Hare-lipped. (Bot. Reg., 1879.) Synonym, *E. papilionaceum*. Orchidacæ. Gynandria Monandria. A native of the West Indies, and introduced from Tortola by Messrs. Loddiges. The flower stem rises about two feet high, terminating with about a dozen very singular flowers. Each flower is near two inches across. The lip is slit up the middle, of a rosy purple colour; the petals yellow, sepals green spotted with red. *Epidendrum*, from *Epi*, upon; and *dendron*, a tree, growing upon.

9. *FUCHSIA DISCOLOR*, Port Famine Fuchsia. (Bot. Mag., 3498) Onagrarica. Octandria Monogynia. Synonym *F. Lowei*. Mr. Lowe of Clapton Nursery, introduced this species some time ago into this country. The flowers are of the medium size, and the calyx of a fine bright crimson colour. The petals are of a deep blue at their base, and lighter towards the edges, to which the specific name *discolour* applies. We find it to be as hardy as most others of this beautiful flowering tribe of plants. *Fuchsia*, from L. Fuchs, a celebrated German Botanist.

10. *GAURA PARVIFLORA*, Small flowered. (Bot. Reg., 3506.) Onagrarica. Octandria Monogynia. A native of the North West Coast of America. It is a biennial plant. The flower stem rises from two to four feet high, terminating in a spike of many flowers. The flowers are very small, of a deep rose colour; and though not very showy are neat and interesting. It is grown in the Glasgow Botanic Garden, quite hardy, and blooms in August and September. *Gaura*, from *Gaurus*, superb; referring to the flowers.

11. *GENTIANA QUINQUEFLORA*, Five flowered. (Bot. Mag., 3496.) Synonym *G. amarilloides*. A native of North America. It is a very pretty flowering annual plant, which has bloomed in the Edinburgh Botanic Garden. The stem rises about half a yard high, being numerously branched, and producing a profusion of blossoms, each being about an inch long, of a lilac blue colour, and no doubt would produce a showy appearance, particularly when grown in a large patch. *Gentiana*, from virtues of plant first experienced by Gentius, King of Illyria.

12. *GOODETIA VINOSA*, Wine-stained. (Bot. Reg., 1880.) Onagracea. Octandria Monogynia. This very pretty flowering hardy annual plant was introduced to the Garden of the London Horticultural Society from California. The flowers have much the appearance of *Oenothera rosea-alba*, they are near two inches across, nearly white, slightly suffused with rosy purple. They are produced in profusion from July to September. We recently noticed *G. rubicunda*, having flowers of an uniform purple colour with an orange eye, both are interesting species.

13. *IRIS ALATA*, Small winged. (Bot. Reg., 1876.) A native of Algiers, and in this country grown in the garden of the Countess of Ilchester, Abbotsbury, Dorsetshire. The flowers are very fragrant, of fine blue, purple and white colours, spotted with darker. Each blossom is about three inches across, and very pretty; it blooms in April. *Iris*, from *iris*, the eye; referring to its variety of colours.

14. *ONCIDIUM CRISPUM*, Crisped-flowered. (Bot. Mag., 3499.) Orchidacæ. Gynandria Monandria. This very singular and large flowered species bloomed last year in the fine collection of Mrs. Horsfall, Everton, Liverpool. It is a native of Brazil, on the Organ Mountains. The flower stem rises about half a yard high, terminating in a raceme of large flowers; each flower is upwards of two

inches across, of a brown and yellow colour, spotted with red; the singular curled form and colour of the flowers, render the species very interesting. *Oncidium*, from *Oghidion*, a tubercle; two prominences on the lip.

15. *PHACELIA VINIFOLIA*, Vine-leaved. (Pax. Mag. Bot.) Boraginææ. Pentandria Monogynia. A very neat flowering half-hardy annual plant. The flower stem rises about half a yard high, branching, producing numerous flowers. Each flower is about a quarter of an inch across, of a bright blue colour, becoming gradually paler to the centre. The plant has bloomed in the Birmingham Botanic Garden, as we also saw it in several places around Manchester. It was introduced from Texas by the late Mr. Drummond. *Phacelia*, from *Phakelos*, a bundle; alluding to the flowers.

16. *PHYSTEGIA TRUNCATA*, Blunt-calyced. (Bot. Mag., 3494.) Labiatæ. Didynamia Gymnospermia. A native of the Texas, and seeds of it were sent by the late Mr. Drummond in 1834, to the Glasgow Botanic Garden. It is a very pretty flowering annual plant, deserving a place in every flower garden. The flower stem rises about ten inches high, branching, producing many racemes clothed with numerous flowers of a purple rose colour, the throat and part of the lip being spotted with dark purple; each flower is near half an inch across. *Physostegia*, from *Physa*, a bladder; and *steges*, a covering; alluding to the calyx.

17. *POINSETTIA PULCHERRIMA*, Showy flowerd. (Bot. Mag., 3493.) Synonym. *Euphorbia pulcherrima*. *E. poinsettiana*. A native of Mexico, where it was discovered by Mr. Poinsette, in 1828. It has bloomed in the collection at the Edinburgh Botanic Garden, as also at Dr. Keills, Canon Mills, near Edinburgh. It is a most ornamental flowering stove plant. The fine scarlet crimson bractea, being about ten inches across, produce a most splendid appearance. In Philadelphia, the Bracteas, it is said, are as much as twenty inches across; it blooms early in Spring; the plant well merits a place in every hothouse. *Poinsette*, in compliment to Mr. Poinsette, the discoverer of the plant in Mexico.

18. *SCILLA CUPANIANA*, Cupani's Squill. (Bot. Reg., 1878.) Synonym. *Ornithogalum cœruleum*. *Hyacinthus stellatus*. A native of Sicily. A hardy bulbous plant, which has bloomed in the collection of H. F. Talbot, Esq., Lacock Abbey, Wilts. The flowers are produced in a lengthened corymbose head; each flower is about half an inch across, of a dull purple colour. The pistil and stems of the filaments are of a bright blue, and produce a pleasing contrast; it blooms in June. *Scilla*, from *Skyllo*, to injure; roots being poisonous.

19. *TRADESCANTIA VIRGINICA*, *flora alba*, White flowered Virginian Spider Wort. (Bot. Mag., 3501.) Commelinææ. Hexandria Monogynia. This pretty flowering variety produces a striking contrast with the fine blue and purple flowered kinds. The present variety is quite hardy and blooms profusely; each flower is near two inches across, white, slightly suffused with purple towards the centre. We have had it some years, it is to be obtained of most of the principle nurserymen. *Tradescantia*, from Mr. John Tradescant, Gardener to King Charles the First.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

Being a subscriber to your publication, I hope you, or some of your correspondents, would favour me in your next part, or as soon as possible, with a list of the best show Pinks that are going at present. Being only one that is commencing in the science of Botany, I hope you will give me the best of your advice, and you will oblige yours, J. S.

ON A SUITABLE SOIL FOR ANNUALS.—I should be much obliged if some correspondent would favour me with a description of the proper soil for annuals, and if one kind would do for all. I fancy I use it too light. I have been think-

ing of using two parts loam and one of leaf mould, and the other old rotten dung. Pray what is meant when the word rich is applied to loam? (We refer our correspondent to the article on soils inserted in our last number of the *Cabinet*.—CONDUCTOR.

ON THE CULTIVATION OF ALSTREMERIAS.—I should be much obliged if some correspondent who cultivates the *Alstroemeria* successfully, would furnish me with a few particulars of management; I cannot get them to bloom well either in pots or the open border. An early attention will much oblige, MARIA.

HYACINTHS.—I have tried to grow hyacinths in the open ground for several years, but cannot get any flowers at all equal to what I have seen in the London seed shops. I should be glad if some cultivator near London would give me the particulars of management required during the year.

July 12th, 1836.

JAMES ARMITAGE.

LIST OF SHOWY BORDER FLOWERS, &c.—I and several friends, having small gardens entirely devoted to flowers, are much in want of a list of *showy* herbaceous plants; there are annually, numbers of these plants for sale at the various seedsmen in town, but we have no knowledge of their character whether *showy* or *not*; and if any of your correspondents would favour us with a list of the names, height, colour, and month for blooming, it would be rendering us a great service.

A COLLECTOR OF HERBACEOUS PLANTS.

REMARKS.

FUCHSIA DISCOLOR possesses one strong claim to our attention inasmuch as it is a native of the most southern portion of the world, which has yet been visited by any Botanist, Port Famine, in the strait of Magellanic, whence seeds were procured into this country. The country and hills, from the height of 2000 feet above the sea to the very verge of the high water mark, are covered with a perpetual verdure, which is remarkably striking, particularly in those places where the glaciers descend into the sea. The sudden contrast in such cases presenting to the view a scene as agreeable as it seems to be anomalous. I have seen vegetation thriving most luxuriantly, and large woody-stemmed trees of *Fuchsia* and *Veronica*, in England considered and treated as tender plants, in full flower within a very short distance of the base of a mountain covered for two-thirds down with snow, and with the temperature at 36 degrees. The *Fuchsias* certainly was rarely found but in sheltered spots, but not so the *Veronica* (*V. decussata*) for the breaches of the Bays on the west side of St. John's Island, at Port Antonio, are lined with trees of the *Veronica* growing even in the very wash of the sea. There is no part of the strait more exposed to the wind than this, for it faces the reach to the west of Cape Forward, down which the wind constantly blows, and brings with it a succession of rain, sleet, or snow; and in the winter months from April to August, the ground is covered with a layer of snow from six inches to two or three feet in depth. There must be some peculiar quality in the atmosphere of this otherwise rigorous climate, which favours vegetation; for if not, those comparatively delicate plants could not live and flourish through the long and severe winters of this region.

CAPTAIN KING.

ON THE TREE MIGNONETTE.—Last year I treated some plants of *Mignonette*, in order to make them shrubby, as follows:—The plants were two feet high, and produced a large head of blossoms. I am sure it is well worth the attention it requires. In a 48 sized pot I potted one good plant, in a very rich loamy soil. In five weeks afterwards I removed the plant, ball entire, into a 36-sized pot, using the same kind of soil. As the plant pushed forth I pinched off all side shoots, allowing the *leaf* to remain from which the shoot pushed. The plant showed bloom when about ten inches high; I pinched it off, and it caused the top lateral shoot to push upwards for a leader, which I trained for the purpose. On reaching two feet high, I cut off the blossom, and encouraged about eight of the best shoots for blooming. They flowered profusely last autumn, and now are real pictures of beauty and fragrance, and I expect will continue so through the

season. I potted off one half of my plants early in May, 1835, and the other early in June. At the end of April 1836, I repotted the plants into 24s, keeping the ball entire. I placed the plants at first in a Melon frame, and when six inches high took them into the greenhouse where I have kept them till now.

Near Boston, May 16th, 1836.

SARAH.

ON THE CULTURE OF PROTEACEÆ.—The eager avidity with which spirited, liberal-minded gentlemen in this country, have, at various periods in the course of the last forty years, sought to possess and maintain in their collections living examples of the many Genera of PROTEACEÆ, affords an abundant proof of the great interest they have excited, and of the high estimation in which plants of a family, possessing forms no less extraordinary than numerous, whether indigenous to the Cape of Good Hope, or to the arid shores of Australia, have been held.

At one period, within, doubtless the recollection of some of our readers, not only the King's gardens at Kew, and the rich Conservatories of GEORGE HENBERT, Esq. at Clapham, but the gardens of other gentlemen, and especially the sale-collections of the more eminent nurserymen around London, could boast of many choice specimens of Cape Proteaceous plants, which, in the present day, are nowhere to be seen; for having been urged by culture to put forth their showy flowers, they immediately afterwards, in many instances, exhibited, from mistreatment, debility and sickness, and eventually dying, have ever since been lost to Britain. Since an ignorance at the time, of the proper mode of managing the plants of this family, whether natives of the Cape or of New Holland, doubtless led to the mortality that prevailed at periods not many years subsequent to their having been raised from the imported seeds, perhaps it may not be out of place in this work, to give our readers the substance of a few practical observations offered us, on the successful treatment of certain of the Order, as pursued at Kew by the principal very able cultivator in that garden, Mr. JOHN SMITH, to whose horticultural knowledge is superadded a critical botanical discrimination of plants generally, and especially of that numerous and beautiful tribe, the FILICES, and to whose talents in these particulars, we are happy, in common with other Botanists in Britain and on the continent, especially attached to the study of Cryptogamic vegetation, to bear ample testimony. Adverting to the interesting pamphlet of Mr. MACNAB, the excellent Superintendent of the Royal Botanic Garden at Edinburgh, on the propagation and culture of *Cape Heaths*, which appeared in 1831, Mr. SMITH observes, that he had pursued with success for some time antecedent to that date, the same mode of treatment of PROTEACEÆ under his care, that is recommended in that publication, with respect to the culture of *Heaths*, viz. in regard to shifting the plants into fresh and larger pots; in the process of which, it is very important to afford, by means of polshers, or fragments of half-baked pottery, a good drainage below, and especially to avoid deep potting, by placing the plant, with its ball of earth round the roots quite entire, so as to be some two or three inches above the surface of the soil at the edge of the pot, which will have the effect of carrying off any superabundant moisture from the roots to the circumference, and thus prevent the chance of water becoming stagnant round the base of the stem; by inattention to this latter circumstance, many a *BANKSIA* and *DRYANDRA* in other collections have been killed; whilst a steady regard to free drainage, to an abundant circulation of air, and a low temperature, he has succeeded in preserving many fine proteaceous plants longer than is generally effected in other gardens in the neighbourhood of London. "Even in the present day," he observes, "there may be some few gardeners, who may object to the mode of potting certain plants here insisted on, on the ground that, by being thus raised in their pots above the soil at the edge, they have not a handsome look; and this practice, now adopted and recommended by Mr. MACNAB with regard to Cape Heaths, &c., had its prejudice on his mind for years, for no other reason, as he himself tells us, "than that I fancied the plant looked as if it were ill potted, and, to my view, unsightly." "But we now see, how much other and more judicious management, founded on physiological principles, has overcome the prejudices of former days, and the difficulties attendant on the culture of not simply these, but the plants of other tribes:—witness our orchidaceous Epiphytes. "The soil," continues this intelligent cultivator, "which I use in the culture of most of the PROTEACEÆ, is a good fresh loam, with which, if stiff, I mix a portion of sand, so as not to admit of its being retentive of water. In time,

after being potted as already directed, the main roots next the stem of the plant will become uncovered: this circumstance I regard as favourable to the health of the plant: there will be no danger of its dying suddenly, as I have known many to do, that have been buried alive,—in other words, been deeply potted!" "In the winter months, care should be taken not to saturate the earth with water, nor wet the leaves or stem more than can be avoided. In dry weather however, during the summer season, water may be freely given to the plants about sunset, and a very essential point to be observed is, that, when they are placed out in the open air in groups, the sun's rays should not be allowed to fall directly on the sides of the pots, for if they are, all the feeding *spongioles* of the tender roots round the inner side of the pot, will assuredly be destroyed, and the life of the plant greatly endangered. Repeatedly have I known a *BANKSIA* to have been killed by the solar ray having been thus allowed to act on the side of the pot, which six months afterwards retained so much of a life-like look—being kept yet in its pot—as to appear to the eye of a superficial observer, to be still alive, and in perfect vigour. The lowest greenhouse-temperature that can judiciously be allowed, to prevent the effects of frost, is sufficient for the generality of the family now in cultivation in Britain, and no artificial heat is required for their preservation, excepting in severe frosty weather." He adds, with reference to pruning, that "as the rapid upright-growing species are, if left to themselves, shorter lived, than others naturally more robust, the free use of the knife is recommended, and the growth of the plants checked, by keeping the luxuriant shoots cut back. This remark is especially applicable to those beautiful plants of the Order, with simple, straight, wand-like stems, such for example as *BANKSIA Brownii* and *DRYANDRA Serra*, B.R., the former of which has been lost to several collections that could once have boasted of it, by its having been suffered to shoot up into exuberant growth, far beyond what the slender, tapering, thinly-fibred root could at all furnish sustenance. By heading these down somewhat, and thus reducing the ascending axis, or column of circulation, a more robust habit is induced, a growth of roots in their pots takes place, lateral branches are thrown out, and the plants thus treated at Kew, are now in the best possible health, with every indicative of being fully established in that garden."

APHIDS ON ROSES.—The rose is often much infested with what is called the green fly insect, which may easily be destroyed, by fumigating with tobacco, or if in the open air by making a solution of quick lime, soot, and water, in the proportion of one peck of each to ten gallons of water. Stir the mixture well together, and afterwards let it stand till the water is clear, then mix about one-sixth of tobacco water from the tobacco manufactory to be had at 1s. per gallon, with the above, and sprinkle the trees or buds with it, and one application will be quite sufficient.

NEW PETUNIAS.—We have recently seen two very handsome varieties of Petunias, which have been raised in Germany, viz., one a flesh-coloured, and the other white, with a darkish eye. Both are very desirable varieties, making a pretty contrast with the other kinds. We also saw a splendid hybrid *Alstromeria*, with flowers near four inches across, it has raised from seed saved from *Apelc-grina*. The flower is a fine flesh-colour, marked very strikingly with rosy crimson. The latter is not yet offered for sale.

METALLIC WIRE.—(See Advertisement in our last Number.)—We had, some time back, specimens of the Wire. We tried it, and found it to answer most admirably. It is very pliable, and can be used with the greatest ease and readiness. It is very durable and neat, and a most excellent substitute for bass matting. For securing plants to walls, trellises, &c., it is peculiarly adapted, as it will also be found the best tie for Dahlia plants and roots, in order to secure the names. The smallest size would be found very suitable for tying up Carnations, &c., a small twist at the ends only being required, which is very readily done. The pieces will last many years for the same purpose.

PURPLE-FLOWERED LABURNUM.—I have just seen a branch of the purple-flowered Laburnum in bloom, which had been grafted upon a branch of the common Laburnum. Both kinds were in blossom at the same time, and had a striking appearance. The purple-blossomed shows itself much better in this way than when it blooms on a stem to itself, the contrast of the purple and yellow showing the former much better.

ISABELLA.

A BOTANICAL COLLECTOR, it is said, is about to proceed to Mexico, sent out by the London Horticultural Society. One is lately gone to South America from Kew Gardens. We anticipate many treasures in plants, the result of their labours.

NEW PLANTS RECENTLY EXHIBITED AT THE BIRMINGHAM SHOW.—From the Earl of Stamford, *Plagiolobium illicifolium*, *Epidendrum cornutum*. From George Barker, Esq., *Eriostemon aspidatum*, *Gompholobium tomentosum*, *Pimelea hypericifolia*. From John Wilmore, Esq., *Phlox Drummondii*. From William Bennett, Esq., *Agapanthus umbellatus albus*. From Mesara. Pope and Sons, Double-flowered purple Wall Flower.

HORTICULTURAL SOCIETY'S GARDENS.

On Saturday, July 9th, the third (and last for the season) of the Horticultural Society's exhibition of flowers took place at their gardens at Chiswick. The attendance was very numerous and fashionable. Between 6,000 and 7,000 of the rank and beauty of the metropolis were present. The weather was extremely propitious, and the day was remarkably pleasant, which doubtless was one great cause of attracting such an assemblage of visitors. The show of flowers and of fruit was equally varied and rich.

The prizes were distributed as follows:—

THE GOLD KNIGHTIAN MEDAL.

Mr. S. Rucker—Collection of Orchideæ. Messrs. Rollisson—*Oncidium Lancanum*. Mr. Green, gardener to Sir. E. Antrobus—Stove and greenhouse plants.

LARGE SILVER MEDAL.

Mr. Gaiues—*Alstromerias*. Mr. C. Palmer—*Melocacti*. Mr. Davies, gardener to Lady Clarke—Grapes. Messrs. Rollisson—Collection of Orchideæ. Mr. Mill, gardener to Mr. N. M. Rothschild—Queen Pineapples. Mr. Errington, gardener to Sir P. G. Egerton—Peaches. Mr. Glenney—Roses (Chinese, &c.) Mr. S. Hooper, gardener—Roses. Mr. Lane, gardener to Mr. J. H. Palmer—Roses and greenhouse plants. Mr. Butcher, gardener to Mrs. Lawrence—Roses and greenhouse plants. Mr. Redding, gardener to Mrs. Murryatt—Single specimen of New Holland Plant. Mr. Rivers, of Sawbridgeworth—Collection of Roses.

THE SILVER KNIGHTIAN MEDAL.

Mr. Cock, Chiswick—Bulbous. Mr. T. Hogg—Pleocios. Mr. Snow, gardener to Lord de Grey—Cucumbers. Mr. Mills—Cockscombs. Mr. Dennis, Chelsea—*Melocacti*. Mr. Redding—Ferns. Mr. Buck—Grapes. Messrs. Lane and Son—Heartsease. Messrs. Rollisson—Heaths. Mr. Clarke—Melons. Mr. Rucker, jun.—*Gongora* Specimen. Mr. Cock—*Pelargoniums*. Mr. C. G. Cooke—Providence Pineapple. Mr. Gibbs—Nectarines. Mr. Niemun—Nectarines. Mr. S. Hooker—Roses (Chinese, &c.) Mr. Wool, Mansfield—Garden Roses. Mr. Paul, Cheshunt—Garden Roses. Mr. Redding—Single Specimen of Stove Plant. Mr. Spence—Specimen of Stove Plant. Mr. D. Ferguson—Single Specimen of Greenhouse Plant. Mr. R. Mangles—Single Specimen of New Holland Plant. Mr. Douglas—Single Specimen of Cape Plant. Mr. Marshall—Hardy Herbaceous Plant.

SILVER BASKET MEDAL.

Mr. Jackson—*Calceolarias*. Mr. Gaiues—*Pelargoniums*. Mr. Paul—Chinese Roses. Rev. Mr. Hinks, Manchester College, York—*Dioscoreas*, cultivated under glass. Mr. Myers, Brentford—Cherries. Mr. Mills—*Hydrangeas*. Mr. R. Scott—Large *Fuchsias*. Mr. Buck—*Crassula coccinea*.

JUDGES—Mr. H. M. Dyer, Mr. Greenhields, Dr. A. Henderson, Mr. Herbert, Mr. Ingram, Mr. Macintosh, and Mr. Richardson.

The company continued arriving as late as 6 o'clock, and many of the visitors, enchanted by the beauty of the scene, remained until half past 8, when the setting sun admonished them that it was time to exchange the pleasures of the Horticultural Gardens for those of the domestic circle.

GRAND SHOW AT VAUXHALL GARDENS.

The flowers and plants were in profusion, and *Roses*, *Ranunculuses*, and *Calceolarias* were certainly never before exhibited so numerously and so fine. Specimen plants, too, were in great beauty and variety, and many bore upon them

evidence of great skill in cultivation; while there were several new and beautiful species among them. The following was the award of prizes:—

Greenhouse Plants—1. Mr. Fleming, gardener to C. Ranken, Esq.; 2. Mr. Glenny. Judges, Messrs. Chandler and Brown. *Calceolarias*—1. Mr. Bray, Chelsea; 2. Mr. Gaines, Battersea. Judges, Messrs. Chandler and Brown. **Hardy Plants**—Mr. Glenny (no competitor). *Geraniums*—1. Mr. Gaines; 2. Mr. Hill; 3. Mr. Cock. Award by the exhibitors themselves. *Ericas*—Mr. Glenny (no competitor). *Thirty Heart's-case* (amateurs)—1. Mr. Salter, Shepherd's Bush; 2. Mr. Bridges, Hampton. Judge, Mr. Glenny. *One Hundred ditto*—1. Mr. Lane; 2. Mr. Gaines; 3. Mr. Hogg, Paddington. *Cut Flowers*—1. Mr. Rivers; 2. Mr. Buchanan. Judges, Messrs. Chandler and Rogers. *Specimen Plants* (for beauty and skill in cultivation)—1. Mr. Gaines; 2. Mr. Fleming; 3. Mr. Buchanan. Judges, Messrs. Rogers and Caulier. *Ditto* (beauty and rarity)—1 and 2. Mr. Glenny; 3. Mr. Gaines; 4. Mr. Harding; 5. Mr. Fleming. Judges, Messrs. Rogers and Caulier. *Best Orchideous Specimen*—Mr. Glenny. *Best Twelve Pinks* (amateurs)—Mr. Neville. Judge, Mr. Glenny. *Pinks* (collections)—1. Mr. Hogg; 2. Mr. Chandler. Judges, Messrs. Glenny and Neville. *Ranunculuses* (twelve)—1. Mr. Alexander; 2. Mr. Cannell; 3. Mr. Beck; 4. Mr. Pile; 5. Mr. Sharpe; 6. Mr. Hooker; 7. Mr. Hogarth; 8. Mr. Caulier. Judges, Messrs. Brown, Hogg, and Glenny. *Ditto* (best collection)—Mr. Alexander (no competitor). *China and Noisette Roses* (amateurs)—1. Mr. Glenny; 2. Mr. Salter. Placed by exhibitors themselves. *Ditto* (collection)—1. Mr. Rivers; 2. Mr. Wood, of Maresfield; 3. Mr. Lowe. *Garden Roses* (amateurs)—1. Mr. Glenny; 2. Mr. Pratt. Judges, Messrs. Rivers, of Sawbridgeworth, and Wood, of Maresfield. *Garden Roses* (collection)—1. Mr. Rivers; 2. Mr. Wood; 3. Mr. Willmer. Judges, Messrs. Glenny and Hooker.

EXTRA PRIZES.

Miscellaneous Collection—Messrs. Chandler. *Ditto*—Mr. Fairbairn. *Collection of Iris*—Mr. Salter. *Balsams*—Mr. Cock, Chiswick.

REFERENCE TO PLATE.

A. *Mimulus Rawsonii*, Mr. Rawson's.—This very striking and handsome variety was raised by our esteemed friend Mr. Menzies, gardener to Christopher Rawson, Esq., Hope House, Halifax. In whose splendid collection of plants, we lately saw it finely in bloom.

B. *Tropaeolum elegans*, Elegant flowered. — This very handsome flowering plant we also saw in bloom at Hope House, and Mr. Menzies informed us that it had been raised there from seed sent to Mr. Rawson, by Mr. Higgins of Liverpool, who brought it from Chili. It is very far superior to the pretty *T. tricolorum*; the colours of the flowers being much more intense; the flowers are also larger, and are produced in far greater profusion. It is a most valuable acquisition to a collection of plants, and being a climber which can easily be kept in due bounds, may be neatly trained upon a wire frame, as recommended by our correspondent in the last number of the *Cabinet*, and thus form a most pleasing object.

FLORICULTURAL CALENDAR FOR AUGUST.

PLANT STOVE.—Continue to admit a large portion of air daily, for the benefit of the plants in general in this department. Attention to watering, eradicating insects, and cleanliness, must be daily attended to.

GREENHOUSE PLANTS.—All exotic trees and shrubs belonging to this department, that are in want of larger pots, or refreshment of new soil, should (if not performed last month) immediately be done. This is the proper time to propagate Aloes, Sedums, and all others of a succulent nature, by means of suckers or bottom offsets; when detached from the parent, they should be potted singly into small pots, using light dry compost, and watering sparingly till they have taken root. In the first, or second week at farthest, inoculation may be performed on any kinds of the Citrus genus.

FLOWER GARDEN.—Due care must be taken respecting watering any kinds of annual, biennial, or perennial plants, that may be in pots. Propagate by means of slips, and parting the roots, of any double-flowered and other desirable fibrous-rooted perennial plants done flowering. Likewise increase by offsets the different kinds of Saxifrage. Auriculas should be cleared of all dead leaves, and shifted into fresh pots; prick out of the seed-bed Seedling Auriculas and Polyanthus, in a shady situation; seeds of both kinds may also be sown in boxes or pans. Carnations may still be layered, also Sweet-williams, the earlier in the month the better. Also plant out Pink pipings, which were put in in June. Sow seeds of all kinds of bulbous-rooted plants in pans or boxes, such as Spring Cyclamen, Anemones, Ranunculuses, &c. &c. Those kind of bulbs wanted to increase should be taken up, if the leaves be decayed, and the offsets taken off. Transplant into nursery beds seedling, perennial, and biennial plants sown in spring. In dry weather gather those flower-seeds that are ripe of any desired kinds. Plant out such kinds of autumn-flowering bulbs as yet remain unplanted.



B

THE
FLORICULTURAL CABINET,
SEPTEMBER 1st, 1836.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CULTURE OF THE PANSY OR HEARTSEASE.

BY MR. JOHN SMITH, FLORIST, ISLINGTON.

THERE is scarcely any plant now in cultivation, which is of greater interest to a flower-garden than the Pansy. The extreme neatness, beauty, and variety of the kinds, their duration of blooming from April to November, and their peculiar adaptation for almost any part of a flower-garden—renders the Pansy peculiarly pre-eminent. Although the plant is of humble growth, yet, it may be grown upon an elevated mound of soil, so as to exhibit its beauties as lofty as desirable. I have cultivated it in several situations after the following manner:—

I had a raised octagonal shaped cone, constructed in the centre of a flower garden, which was two yards high, I formed it by having troughs made one foot broad and eight inches deep, tier above tier to the height named. The interior of the troughs had not a boarded bottom, but a bar or two to keep the whole together. The substratum was of good garden soil, and the troughs in which I planted the Pansies was filled with a light rich loamy soil, a compost which I had made of turf soil and manure that had been mixed two years, and turned over several times. In this situation the plants bloomed most beautifully, and produced a striking effect.

I had a raised bank made against a wall, in order to conceal it from view of my dwelling, and this was constructed after the same manner, tier above tier to the height of five feet, and was equally handsome. The troughs were formed of tiles eight inches deep, above the soil of the lower tier, and the lower edge was inserted six inches to keep the tile upright.

From the above statements it will be obvious to the readers of the

Cabinet, that an elevated bed may be made of any shape or height, in which this charming little plant may be grown, and, having the flowers raised so near to view, is a desirable advantage.

Occasional watering is necessary, but not near so much as persons might judge would be required.

Having said this much of the appropriateness of the Pansy to suit almost any convenience, I shall now add a few observations on the culture, &c.

Choice of Sorts.—The properties of a superior flower consists in the brilliancy of each colour, that is, of each colour being decidedly strong; the form of the flower should be as near a circle as possible, and the larger the better; the edges of the petals not to be fringed or undulated at all, but even and regular. In a flower, shaped as above described, the small angles which are seen in many pansies where the petals intersect each other, are wholly done away with; the eye should be rather small, and the stigma to fill the same.

Propagation.—New varieties are readily obtained from seeds. Some care is necessary in collecting the seeds, as the capsule (seed vessel) undergoes but little change after it is formed, very soon bursting. When the seeds are ripe, however, the capsule, which before was pendulous, now becomes erect, and in a few hours afterwards, if the day be sunny, the seeds will be dispersed.

If the seeds be gathered any time from May to September, it should be sown immediately after being collected, but if after September it is better to defer the sowing till Spring.

If the seed be sown in the open border, a shady situation is the best, the soil not being so liable to become droughty. If in boxes they can be placed in any situation desirable. Sow the seeds in rich light soil, let the surface be made fine and smooth, cover with fine sifted soil about one-eighth of an inch deep, and gently, with a flat board, press the soil to the seed. Never allow the soil to become dry till the plants are up. When the seedling plants are about an inch high, they may be transplanted about four inches apart, into a bed of light rich soil. If the situation be a little shady it will be the better for the plants; if the season be dry occasional watering will be necessary. The plants will bloom the same season if sown early in the year, and, if later, they will bloom the following spring; the best will easily remove to another situation.

By Cuttings.—Cuttings will readily strike root at any time from the first of April to the end September, if the cuttings be selected from young shoots, the old shoots at the end of summer being hollow, and such seldom push roots. The ends of the shoots, about two inches

long, are suitable for the purpose, cutting through, close under a joint; they should be inserted in a fine soil of sand and loam, be watered well, and shaded for a few days. At the end of summer it is best to insert cuttings in pots or boxes, so that they can be placed in a frame to be assisted in striking.

By Slips or Offsets.—The plants will often have a quantity of shoots that will have struck root, these slips may be taken off at any time by removing a portion of the soil, and cutting the slips or offsets off with a portion of roots to each.

By Layers.—There are a few kinds which I have found difficult to increase by cuttings, nor could I get the shoots to root when earthed up, in order to encourage them to strike roots into the soil; such, I have layed the same as carnations, using a finely sifted soil, and covering the incised part with it I did; not need a hooked peg. This mode is very easily done, at any time from the end of March to the early part of October, and with certain success.

In order to have fine blooming plants, it is necessary to have a stock raised every year. Such as are raised early in the present year, bloom fine from April to July, and those raised later in the present year, bloom from July to the end of the season. One year old plants are the best blooming ones, make the neatest patches, and look the handsomest. When much older they make long and straggling shoots, producing small blossoms. Being so easy of propagation and culture, a continuance of bloom may be secured nine months in a year. I find that Pansies grown on the elevated beds, being drier than the ordinary borders of the garden, stand well through the severest winters. Those plants I cultivate in the usual beds and borders of my garden, I cover the soil close up to the plants with some rotten tanner's bark, or mulchy manure from an old mushroom bed, to the depth of two or three inches, which fully answers the purpose of preserving them from injury. If there be convenience, young plants of a sort, may be potted off at the end of September, and be kept in a cool frame or cool greenhouse till March following. I have done both. A list of the finest sorts, description of them, and some further remarks I will send for the following Number.

July 13th, 1836. .

ARTICLE II.—ON GROWING FERNS IN BOXES, &c.

IN the transactions of the Society of Arts, Commerce, and Manufactures. In Vol. 50, part 1, p. 226, (Appendix,) is a letter to B. H. Jolly, Esq., from N. B. Ward, Esq., on his method of growing

ferns and other plants, which thrive best in a humid atmosphere, by planting them in a box filled with moist earth, and covered with a glazed frame, rendered as nearly air-tight as possible. In this situation they will flourish, even in London, the junctures of the box being close enough to exclude the particles of soot, smoke, and dust, which are constantly floating in the air of the metropolis. The same kind of boxes have been applied by their inventor to a much more important service, namely, that of conveying living plants by long sea voyages, from one country and climate to another, with singular success, and without the necessity of those minute precautions of regulating the admission of air and light, and of duly supplying them with water, which are absolutely necessary if recourse is had to the usual mode. Cases for New Holland were embarked the first week in June 1833, and arrived at their destination in the following January. They were on the poop of the ship, the whole voyage, and all the water they had during the passage was a light sprinkling, during the hot weather near the equator. The plants, with the exception of two or three ferns which appeared to have faded, were all alive and vigorous—they consisted of ferns, mosses, grasses, &c. The cases were refilled at Sydney, in February 1834, chiefly with ferns and two or three flowering plants—the thermometer between 90° and 100° ; in rounding Cape Horn two or three months after, as low as 20° at eight P. M.; in crossing the line 120° ; and on the arrival of the ship in the British Channel in November, 40° . These cases occupied the same station as on the outward-bound voyage; the plants were not once watered, and received no protection by day or night, yet arrived in the most flourishing state after eight months confinement. Various other successful trials have been made to Para, Calcutta, and other places.—See *Letters from N. B. Ward, Esq. and Capt. Mallard—Transactions of the Society of Arts, Vol. 50, Part 2, p. 189, Appendix.*

ARTICLE III.—ON PROPAGATING PLANTS BY GRAFTING, BUDDING AND INARCHING.

BY MR. CHARLES TAYLOR, ELAM HALL, DORSETSHIRE.

MANY plants are propagated by one or the other of these means; I cannot, however, omit noticing a very ingenious mode of grafting, described by M. Oscar Leclerc, of the Jardin du Roi, Paris, in a communication to the editor of the *Gardener's Magazine*, and said to be the invention of Mr. Blaike, an eminent British gardener, who long resided in France, and who may be considered as the founder of

modern gardening in that country : "This mode of grafting," observes M. Leclerc, "which I shall henceforth call the *Graffe Blaikie*, succeeds in most plants, both of the hot-house and open air; and it seems particularly well calculated for the propagation of intertropical plants and trees. The success which attends it on delicate hot-house plants, and particularly on these which are hard-wooded, is very difficult to be obtained by any other means. During the time when the sap is in full activity, the scion must be procured, if possible, of exactly the same diameter as the stock on which it is to be grafted.

"First make two lateral oblique incisions, exactly similar, the one on the stock from above to below, the other on the scion from below to above, and both slooping from without towards the centre or interior of the wood. The tongues are then cut in the form of a long wedge, by stripping them of their bark. The cut parts are then reunited, by taking care, as usual, to make them coincide as exactly as possible. The scion being bound by ligatures to the stock in the ordinary way. The inferior part of the scion, that is, the lower, is plunged in a vessel of water. It will, however, be necessary to remove the water from time to time, and to renew the base of the submerged scion by cutting off its extremity.

"The stock is sometimes headed down immediately after the operation, in which case, particular care must be taken to leave a bud or a shoot above the incision, in order to attract the sap to the place where the operation was performed. Sometimes, however, the stock is not headed down till after its union with the scion is completed.

"When the plant operated on is small, and the scion of a delicate species, the plant should be covered with a bell-glass to prevent too great transpiration of the leaves. The air in the interior must be occasionally renewed, as, without this attention, it would, by the evaporation of the water, be rendered too humid. If the diameter of the scion be less than that of the stock, the operation must of course be different from the preceeding. In such a case, the incisions must be limited simply to two longitudinal ones of equal dimensions, one on the scion, the other on the stock. This is the easiest and the most natural mode, and also the most favourable for giving solidity to the graft."

This mode of grafting is, we think, particularly applicable to oranges, lemons, &c., and these plants, engrafted by any of the ordinary methods, that will admit of a portion of the scions being left long enough to be inserted into a phial or cup of water, will facilitate the operation. Some cultivators practise this mode of engrafting in this country; and a variety of it may be noticed as practised by that

intelligent and indefatigable botanist, Mr. Murray of Glasgow, who substitutes for the water a potato or turnip, into which he inserts the bottom end of the scion. Some propagators have recommended inserting the lower end of the scion into the mould of a pot, kept at a proper degree of heat and moisture; and in some cases where it has been practised, the scion has rooted in the mould, and where such has occurred, the part below the union of the graft has been cut off, and has consequently produced a perfect plant, giving thus two plants instead of one. Instances have also occurred of the scion rooting into the water, and in like manner producing a plant. It may be mentioned, as a necessary precaution in the above method of grafting, that to prevent too rapid evaporation, produced either by the sun or winds, a cap of stout paper or parchment has been recommended, which may be fixed a little below the part operated on, and so contrived as to enclose the whole of the upper part of the stock. This precaution becomes particularly necessary when the operation is performed in the open air, and particularly in the case of resinous or gummy trees.

Of the plants which belong to those departments, which are propagated by these methods, may be enumerated the families of *Camellia* and *Citrus*, the varieties of which are generally propagated by the two latter methods, as are some species of *Daphne*, *Berberis fascicularis*, and various others. Sometimes grafting is performed on the roots of some rare plants, as in the case of *Pæonia papavericia* which is often grafted on pieces of the roots of *Pæonia moutan*.

Experienced operators propagate plants by these means with much success, and indeed the idea of increasing the size of a *Camellia*, for example, to an almost unlimited extent, by inarching very large branches, or, in some cases, entire plants upon others of greater size, appears to be perfectly practicable. As the size of these plants adds to their value, and as they are several years before they acquire a large size, however well they may be cultivated, this mode of increasing them certainly deserves to be more generally adopted. I possess a plant which has above thirty different varieties growing upon it. Large specimens of *Camellias*, and of several other plants, are more likely to be quickly attained by a process of this kind than by any other. The precise season of performing the above operations on exotic plants, will always be governed by the state of the wood on the plants, and by no stated period of the season. When the wood or buds are in a fit state, then the operation should be proceeded with.

August 2nd, 1836.

ARTICLE IV.—ON THE CULTURE OF THE CHINESE PRIMROSE.
(*PRIMULUS SINENSIS*).—By ARDISIA.

IN a former Number I perceive a query upon the Chinese Primrose, and having myself been a very successful grower, I now send my method for the perusal of your correspondent.

I raise my plants every season from seed, as I find them bloom much finer the first year than afterwards. The seed is sown early in Spring, and when the plants appear above ground, I transplant them out singly into small pots. The soil best adapted, is, I find, rich sandy loam. Early in May I pot them into larger pots, about eight inches in diameter, and ten deep, and again place them in the greenhouse, where I allow them a full current of air.

With this simple treatment I have a profusion of strong and magnificent trusses of bloom.

ARTICLE V.—ON THE CULTURE OF THE CAMELLIA.

BY A LONDON PRACTICAL GARDENER.

THIS very popular family, has always the best effect when cultivated in a house by themselves; and as there are certain seasons in which this genus requires a treatment almost peculiar to itself, their separate culture is, therefore, the more necessary. The splendour and profusion of the blossoms of this genus do not only attract our notice, considered merely as an ornamental plant, but has a considerable claim on our more intimate regard, when we consider it as supplying us with one of the necessities of life, and probably one of the most exhilarating and useful medicines of which our Pharmacopœias can boast. From the species *Camellia bohea*, *viridis*, and *sasanqua*, are obtained the well-known tea of commerce, which is imported by us from China, where these three species, together with *C. Japonica*, grow in abundance, and in that country attain the character of evergreen shrubs or low trees. From these species have been originated, by cultivation, the many varieties now cultivated. The most successful and generally adopted method of propagating this family, is by inarching or grafting; by either of these means each variety is perpetuated, but new varieties are only to be obtained from seeds; as these seldom ripen, at least in any quantity, in this country, and few are imported in a fit state to vegetate, the propagation of new varieties is consequently a matter of some importance. As, in most other cases, it is from single flowering plants that seed are to be expected, although sometimes the semi-double flowers also produce them, and of these, the common single red is the most prolific in

affording seed. Sometimes seedlings so obtained are used only for stocks, whereon to work other rarer kinds, although sometimes they are kept till they attain a flowering state to ascertain their relative merits. Mr. Knight, of the Exotic Nursery, has many seedling plants thus originated, which assume as yet different characters, so far as the buds, leaves, &c. are concerned, from those from which they have sprung; and, under the management of that very scientific cultivator, every justice may be expected to be done them. These, we understand, have been principally obtained from the magnificent specimen which he so long and so well cultivated, and to which we have already alluded. Stocks, however, are for the most part obtained by nurserymen from layers of the common single red, which they have often planted out in pits for this purpose, or from plants originated from cuttings of the same or equally common sorts. Camellias are sometimes budded, but for the most part are either grafted or inarched, in either case, the process of tonguing is dispensed with as weakening the stock; and that mode of grafting, termed *side-grafting*, is preferred. It may be observed, that, of all the stocks, for this or any other purpose, those obtained from seeds, are the best; but, in regard to Camellias, as the seeds are two years in coming up, cultivators seldom wait till such stocks are of proper size to be operated on. Sometimes the double Camellias are obtained from cuttings, but this is both a tedious and precarious method of increasing them.

As to the proper season for grafting or inarching Camellias, the spring is the best, and just at that time when the plants have done flowering and are beginning to grow. This state of vegetation does not always take place at precisely the same time, as some cultivators force their Camellias into bloom very early; such, therefore, should be operated upon not by the exact period of the year, but by the state of the plants: Some will be fit for this process in January, February, March, and April. Those, however, which are operated on in March and April, will have the better chance to succeed, although those which are operated on in February answer pretty well.

During the time the process is going on, the house should be kept rather closely shut up, and the atmosphere kept rather damp; however, these must not be too freely indulged in as in the former case, the plants would be liable to being drawn up weak, and consequently become straggling and of bad habits. The time that elapses before a union of the scion and stock completely takes place is in different sorts, and more particularly in regard to the state of health and vigour in which the plants may be, as well as the favourableness or unfavourableness of the season.

vourableness of the season. Observation alone can dictate when the clay, and afterwards the bandage of matting, should be removed. There is an evil in allowing either to remain on too long, as well as taking them off too soon; however, there is less danger to be apprehended from their remaining on a week or even two too long, than in taking them off a week too soon. Some cultivators adopt the *Grafse Blaikie* mode of inarching with much success, and others also practise the mode recommended by Mr. Murray, of Glasgow, by inserting the lower extremity of the scion into potato or small turnip. Camellias will form a union when the branches are of considerable size; and, as we have already noticed, very large plants may be speedily formed by inarching several whole plants upon one common stock. This process is now becoming prevalent round London; and when the operation is properly performed, and the plant afterwards properly cultivated, specimens of large size may be expected to become more common than they have hitherto been; and certainly one or two large specimens of this plant, where there is convenience for keeping them, are better than a number of small ones, which will take up the same room, and never can produce so imposing an effect as is the case with large specimens. Upon one or two plants may thus be cultivated the whole collection of varieties and species now known. In grafting Camellias, much care should be taken to perform the operation neatly, so as to leave as little appearance of the place of union as possible. I recollect, when this plant was much less common than it now is, and the methods of propagating it less understood, that some cultivators, to hide its deformity in the stem, performed the operation very close to the surface of the pot in which the stock grew; and when the union had taken place completely, they used to repot them into deeper pots, so as to bury the wound under the mould. A practice so unskilful was of course unsuccessful; the plants being thus too deeply potted did not prosper, and, as might be expected, deterred many from purchasing, from an idea that the plants were either short-lived, or would not grow without the care of a proficient person. The case, however, is otherwise: scarcely any plant is easier than the camellia; although it must be admitted, that, to grow them in the first degree of excellence, much judgment is required. Camellias, like most other plants, have their periods of growth and also of the rest; during the former state they cannot hardly be watered over much, and during the latter, they will soon languish if too bountifully supplied. For this, no rules can be laid down; experience and observation on the part of the cultivator alone can be a safe guide.

ARTICLE VI.

ON THE CULTURE OF CALCEOLARIAS.

BY A STAR IN THE EAST.

THIS very charming family of plants having now become so general a favourite and necessary ornament to the flower garden, as well as the sitting room, induces me to send the following remarks on the mode of raising seedlings, as well as the general culture thereof, for insertion in the *Cabinet*.

But a very few years back, the only calceolaria which I could meet with for culture in my flower garden, was the *C. pinnata*, and now, in consequence of the attention that has been given in raising new varieties from seed, I possess upwards of seventy strikingly distinct kinds. Last year I raised three thousand seedlings, most of which are now coming into bloom; many already flowered, are real good kinds, and amply repay for any trouble. The following is the mode of management I have successfully pursued:—

On Impregnating for New Varieties.—I tried for several years to get seed from those plants I cultivated in the open borders, judging that the flowers would be impregnated by the bee, but either from this being omitted, or if done, the flowers, or seed vessel, was so damaged by rain or other casualties, that I never could raise a single plant. In 1834, I planted a number of plants into the open bed, and had a three light frame placed over them, taking away the lights, excepting to protect at night and from rains. In addition to this I continued to impregnate the blossoms from time to time.

During the process of watching the blossoms, in order to take the farina at a proper state, I found that such attention was particularly necessary, as it was only for a short duration in a proper condition, and that not when mere dust, but as soon as it became in a limpid state. The application of this to the stigma at that period, produced the desired effect. A better knowledge can be obtained by practical observation, than can be supplied in this place. There is also a particular time when the stigma is prepared for the reception of the farina, this too will easily be ascertained in practise. My aim has been to obtain kinds having the highest colours, that should have the largest flowers and the pale colours accordingly. I have also been endeavouring to get the shrubby kinds spotted similar to many of the large herbaceous varieties—in this I hope to succeed. I never allow any wet to get upon the flowers after impregnation, and I take care not to allow the roots to be droughted; this attention being paid, I have succeeded in

obtaining a very large supply of seed, which last year afforded me three thousand plants, and I have now as many to bloom next year. It is easily ascertained when the seed vessels are ripe; I am careful to gather it immediately, and all the seed I collect by the end of August, I sow immediately, so that the plants get strong enough to endure winter. On the other hand, if sown much later they are generally too weak to survive, so that all late seed I save till spring.

I sow the seed upon some finely sifted soil, and place it in a hot-bed frame, being careful to keep it moist by sprinkling with water, through the medium of a syringe with a fine rose; this keeps the soil moist without washing it bare.

In order to insure the seedlings for blooming, I plant them out into some light rich soil in a cool frame, as early as I find them strong enough to bear it. In the winter I protect them by the lights and straw hurdles in severe weather.

In watering *Calceolarias*, I find it necessary to avoid watering the centre of the plant, or it will very soon rot. I pour the water liberally over the soil, not only close up to the plant, but as far as the roots extend, by this attention I never lost a single plant.

I find too, that the *Calceolarias* flourishes best when a portion of fresh loam is added; I add to it some well rotted manure, but has it mixed with the soil three months before planting, for very fresh manure kills the plant.

Scarcely any plant is more easily increased, the offsets and slips being mostly furnished with small roots, these taken off and inserted in a pot, at the side of it, they will soon strike, and become fit for parting and final planting. The greatest difficulty with the *Calceolaria*, is to keep it through the winter. But I succeed with the following treatment, so as not to loose a single plant.

At the end of September I take off a sufficiency of slips and offsets, and having a quantity of pots filled one-third with broken potsherds, I pot six or eight in each 24 sized pot, using a soil composed of equal parts of peat and loam. This admits of water passing off freely, so that in the damp of winter the plants never suffer from wet. After potting I keep the plants in a shady place out of doors till the frost is likely to commence, I then remove them into the cool frame, where they are kept from frost. In order to keep them dry, I have the pots placed upon bricks.

Early in March I pot off the plants into 48 sized pots, still keeping them in the cool-frame, for if placed where there is much warmth, they often perish. I give air at all favourable opportunities, and stir the surface of the soil when ever it becomes mouldy or green.

The first week in May I plant out all my stock, turning them entire out of the pots, into the open border, pit-frames, &c.

In planting them out into an open bed, I find it of advantage to have it raised several inches above the level of the ground; this keeps it from injury by wet, as well as by raising it high at the centre, gives a very pretty effect.

Near Lynn, July 21st, 1836.

ARTICLE VII.—A DESCRIPTION OF SOME OF THE HANDSOMEST KINDS OF CAMPANULAS, &c.—By C. DELA PRYME.

A CORRESPONDENT in a late Number of the *Cabinet* requesting some information as to the Campanula, or Bell-flower, perhaps the following may be of some use. There are seventeen principal kinds, which are here arranged in the order of their flowering, from May to October.

<i>Names.</i>	<i>Colours.</i>	<i>Height in ft.</i>	<i>Time of Flowering.</i>
punctata.	White.	1	May, June. [earliest.]
azurea.	Purple.	1½	June, July.
pubescens.	Blue.	1	June, July, August.
carpatia.	Do.	¾	Do. [smallest.]
linifolia.	Do.	¾	Do.
speculum.	White.	1½	June, July, August, September.
caucasica.	Violet.	¾	July, August.
collina.	Blue.	1	Do.
pendula.	Cream.	1	Do.
lactiflora.	White.	5½	July, August, September. [largest.]
sibirica.	Blue.	1	Do.
Lorei.	Bluish.	1	Do.
cephalantha.	Blue.	1	Do.
aggregata.	Pale Do.	2	Do.
pyramidalis.	Bluish.	4	Do.
persicifolia.	Pale Blue.	3	Do.
pentagonia.	Purple.	1½	July to October. [latest.]

Besides these are the *saxatilis*, *speciosa*, *glomerata*, *flora-alba*, *patula*, *trachelium*, *garganica*, *grandiflora*, *hederacea*, *fragilis*, (or *hirsuta*), and some others of less note. They are most of them hardy, easy of cultivation, and handsome. The Campanula may be reckoned as the head of the border plants, and it has more varieties than any other (not excepting the *Gentiana*.) They should *not* be planted *before* the beginning of March or end of February (although this is sometimes done.)

Cambridge, Aug., 1836.

ARTICLE VIII.—ON THE CULTURE OF THE TROPÆOLUM TRICOLORUM AND PENTAPHYLLUM.

BY MR. RICHARD GOODSALL, GARDENER, ENDON HOUSE, MIDDLESEX.

I WAS much pleased with the beautiful flowering *Tropæolum* inserted in the *Cabinet* for August; I have possessed the *T. tricolorum* and *pentaphyllum* for several years, and have cultivated them in a very successful manner; I am, therefore, induced to send you the particulars of my mode of management, for insertion in the *Cabinet*.

The soil I use is a mixture of rich loam and sandy peat, and to have a good degree of broken pots for drainage. Early in spring, I place one tuber each in a small pot; as some of the tubers are larger than others, I select a pot about as wide again as the tuber; after potting, I place them in a Cucumber or Melon frame. At the time of planting, I give them a supply of water, but being kept in moist heat they require little afterwards, till the shoots have pushed some length. This attention is necessary to be observed, for if much water be given before the shoots push, the root will be liable to rot; so that my only care is, to keep the soil from being dry.

When the shoots have got a few inches high, I repot the plant into one a size larger; this is repeated in its subsequent treatment, whenever it is observed to require it, by the pot being filled with roots. If the plant be over potted at once, it is certain to suffer by it, for the roots not occupying the soil, and its being of necessity kept moist, becomes sour by frequent waterings, and unfit for the plant to grow in. But by often repotting into a size larger, every due encouragement is given to the successful culture of the plant, and to secure a profusion of blossom. When the plant has pushed as high as the frame will allow, I take it into ainery of moderate temperature, where I keep it for a few days, and then remove it into the warmest part of a greenhouse, but where a free supply of air can reach it, to prevent its moulding. As the plant pushes, I take care to have it neatly secured, using a stick or two for its early stages of growth, but afterwards to a wire frame, made something like what is recommended in the *Cabinet*. In pushing down the points of the stick or wire, I do not allow them to be inserted close to the side of the pot, because the fibrous roots run round there in abundance, and the point of the stick or wire pressed down there, would cut the greater part of them through, or by mutilation damage them in some degree.

When I discover that the plant is attacked by the green fly, I have it sprinkled at the under side of the foliage with a strong solution of

a pure sand, untainted with any mixture whatever. The manner of using it, is to have the pot well drained as usual for cuttings, and then filled with sandy peat, within an inch of the rim; which must be pressed pretty light, so as not to sink much afterwards; let the remainder be filled with the sand and well levelled at the top, being also pressed tight; the whole should then get a good watering to settle it before the cuttings are inserted; then proceed to make the necessary quantity of cuttings to fill it, and the sand will be soaked sufficiently, and fit to receive them by the time they are ready. Strong, luxuriant, or leading shoots, are not to be chosen, as from their redundancy of sap, they are exceedingly liable to damps; the ends of the lateral, or side shoots, are by experience proved to answer infinitely better, when selected with judgment, so as care is taken to reject any that have in the least degree attained a hard woodiness of substance, or that cut wiry, and tough. They need not exceed an inch in length, two thirds of which is to be divested of its leaves, and finished by a clean horizontal cut at the bottom; but in taking the leaves off, it is necessary to be careful not to injure the bark of the cuttings, by paring them too close, but rather to leave a part of the footstalk attached to it. When a sufficient number is ready, let them be immediately inserted in the sand with a small neat dibber, something about the size and shape of a goose quill; they should be pretty well tightened in the sand, and have a moderate sprinkle of water to settle it about their stems. A proper glass being previously chosen, when they have stood about half an hour to drain, and settle, it should be set on; pressing it gently on the surface so as to make it perfectly close. If this business is begun in June, which is early enough, they must, (on account of the increased heat of the season,) be plunged in some cool shady situation, where they can be conveniently shaded when requisite: an exhausted hotbed, with a frame, and good lights on it, will answer very well; or otherwise, the north side of any low wall or hedge where they will be a little sheltered from the noon-day sun, and have the benefit of it morning and evening; in either place, the pots must be plunged up to the rim in old tan or saw-dust; and in the latter, they will also require to be covered with large cap glasses over the small ones. When potted and watered, they must be set on the kirbs, or other convenient places in the stove for a few days, and shaded until they have established themselves in the fresh mould; as soon as they have taken to grow freely, let them be removed to the greenhouse; but observe not to expose them to the open air entirely at first, as it might do them a material injury; on account of which, the lights over them should be kept close than usual for a few days.

PART II.

E X T R A C T.

ON THE MANAGEMENT OF THE PLANTS BELONGING TO THE GENUS CITRUS, in the Garden of Edward Miller Mundy, Esq., M.P., F.H.S., at Shipley Hall, in Derbyshire. By Mr. Richard Ayres, Corresponding Member of the Horticultural Society, Gardener to Mr. Mundy.—My green-house is forty-nine feet long, and seventeen feet wide, with a glazed sashed roof, sloping to the south; the back and sides are solid walls; the front is nine feet and a half high, and has six glazed folding doors, the intervals between which are filled with fixed glazed sashes. The floor is a stone pavement, and the house is warmed by a flue built on arches, and carried under the pavement near to the front glass, the heated air being admitted into the house through ventilators from a narrow air chamber adjoining to the flue. The back wall, on the inside, is eighteen feet high, and that, as well as the sides of the house, are covered with a trellis, the openings of which are six inches square. Adjoining the back wall, at even distances from each other, are six holes in the pavement, each two feet square; in these are growing trees in the following order:—1, a Lemon; 2, a China Orange; 3, a Lemon; 4, a Citron; 5, a Seville Orange; 6, a Lemon. They were planted young, nine years since; the border of earth in which they grow extends under the pavement, and their branches are trained to the trellis. In the same manner, last year, a Citron tree was planted against the west side, and a Lime tree against the east side; and these are trained to the trellis at the two sides respectively. Besides the above eight trees, there are twenty-two in tubs, seventeen of which were brought from Malta by Captain George Mundy, of the Royal Navy, to his father, six years ago; they were then small, but have grown finely since, and the fruits they have recently produced have been excellent both for size and flavour. In addition to these trees in tubs, other greenhouse plants in pots are kept in the house in the winter season. The conservatory, of which a section and ground plan are annexed is thirty-two feet six inches long; it is divided longitudinally into three borders; the back border is three feet eight inches wide, and its level is elevated three feet above the other part of the house by means of a wall which supports it. A paved walk, two feet eight inches wide, is carried over the border, so that only about one foot of it next the back wall is exposed to view: in this border, at even distances, are planted one Lime, and three Lemon trees; the Lemons are of my own working, they are nine years old from the bud, and are now in a fine bearing state; the lime was only turned out of a tub last March. The centre border is thirteen feet broad; in it are planted, in a double row, four in each row, at even distances, eight trees, viz.: two standard China Oranges, one Dwarf China Orange, three Seville Oranges, and two Maltese Oranges; these last are young plants put in two years ago; the other six trees are all in a bearing state. In the front border, which is only four feet wide, three trees were planted in 1816; one is a China Orange, three years old from the bud, and the two others are Lemons. This house is also used for the growth of Grapes: Vines are planted in the front of it, on the outside, and trained up the rafters of the glass roof, being introduced through holes in the front wall. The trees in each of the three borders of the conservatory are trained in different ways. Those in the back border are fastened to a trellis against the back wall. The trees in the centre border have their branches in part secured to a row of stakes set along the front and sides of the border, at even distances from each other; the stakes are each six feet in length above the ground, into which they are driven about a foot and a half; such of the branches as can be brought into contact with these stakes are fastened to them, the others are tied to stakes placed irregularly in different parts of the border, but chiefly at the back; by these means the branches are spread evenly over the whole extent of the border,

are well exposed to the sun and light, and also produce a beautiful effect, whether in blossom or in fruit, the stakes having more the appearance of supports than of being placed for the purpose of fastening the branches to them. The trees in the front border are trained flat on a horizontal trellis in the manner of peach trees in a house, the trellis being two feet from the ground. The borders both in the greenhouse and conservatory were filled, at the time the fruit trees were planted, with a compost made as follows: to twelve barrows full of strong turf loam, six of good rotten dung and three of vegetable mould were added; these were properly incorporated six months previous to being used, and then put into the borders. After I had planted both the house, having a few old trees in tubs and pots which were not in good health, I was induced to try on them the effect of a richer compost, and I also applied to them waterings of a compounded liquid manure. These sickly trees were restored to good health in twelve months, and as they made fine fruitful wood, I was so satisfied of the advantage of my new compost and of the composition water, that I determined in future to use them with all my other plants, whether in the borders or in tubs and pots. I have applied them in the manner hereafter detailed, and the beneficial effects resulting from their use have exceeded my expectations, not only in the vigour and richness of the wood and foliage, but in the abundance, size, and flavour of the fruit. The compost is formed of ten parts (a wheelbarrow full is my usual integral quantity) of strong turf loam, seven of pigeon's dung, seven of garbage either from the dog-kennel or butcher's yard, seven of sheep's dung, seven of good rotten horse dung, and ten of old vegetable mould; they must be mixed together twelve months previous to use, that time being necessary to bring the ingredients into a proper state of pulverization. The composition water is prepared as follows: three wheelbarrows full of cow dung fresh from a pasture field, two wheelbarrows full of fresh sheep's dung, and two pecks of quick lime are thrown into one hogsheaf of soft water; the mixture is frequently stirred for a week or ten days before it is used, and when applied to the plants, ought to be about the consistence of cream. Previous to describing my method of cultivating the plants, I cannot avoid observing that in the usual management of Oranges and other trees of the same description in greenhouses, however fine the plants, they only serve the purpose of ornament, and are otherwise useless, never producing any fruit fit for the table. The failure arises from the common practice with most gardeners of taking these trees out of the greenhouse when they put out the common greenhouse plants for the summer months; whereas, the proper course which they ought to follow, is to keep them in the house through the whole season, and to avail themselves of the removal of the other plants to apply the peculiar treatment necessary to bring them into proper bearing. From the experience which my practice has given me, I do not think that Orange and other similar trees require much warmth in the winter months; I therefore never suffer my house to be heated above 50 degrees by fire heat until the end of February, or the beginning of March, when, the trees, if in good health, will begin to show blossom; the fire-heat should then be increased to 55 degrees; but the houses ought not to be warmed above 65 degrees at this time by sun heat, the excess of which must be checked by the admission of air; and indeed the more air the trees have during the time of blossoming, the more certain will be the crop of fruit. My trees are washed with a hand syringe about twice a week in the winter months, advantage being taken of the middle of the day for that work in cold weather; in summer they are washed in the morning, and it is then done every day. During the time the trees are in blossom, they require more care in respect to watering, I therefore then use a syringe with a top, the holes of which are so small that they will not admit a fine needle to pass through them. Clean soft water from the cistern in the conservatory is used for all these purposes. As soon as the fruit is set I begin to water the trees at their roots with the composition water above described, giving more or less according to discretion; the trees having no other sort of water during the summer months, except what little falls from their leaves when they are syringed each morning.

In the early part of June the greenhouse plants are taken out for the summer, and I then begin to force the trees, by keeping the heat in the house up as near as possible to 75°, for I do not consider that either Citrons, Oranges, Lemons, or Limes can be grown fine and good with less heat. Whilst the forcing is going on, particular attention is paid to the waterings above described. In June I also give

the trees, whether in the borders or in tubs and pots, a top dressing of the rich compost before mentioned, this is of the greatest advantage in swelling the fruit, and it is done in the following manner. The earth above the roots is moved with a small hand fork, taking care not to disturb any part of the roots; all the loose earth is then removed clear to the roots, and replaced with the compost. This operation I have performed for the last six years, on the trees in the borders, and to it I principally attribute my success in producing such fine and abundant crops. With respect to pruning the trees, I do not know that regular directions can be given for the work, but I will state in what manner the trees at Shipley are treated. Early in February they are looked over; at that time it is apparent what wood is likely to be fruitful, and as a certain quantity of old branches are yearly cut away I take out those which seem least promising, and so make room for the younger and more productive wood. If the trees afterwards grow very strong, the shoots are shortened according to their strength, in the same way as Peach trees are shortened. Thus the branches pruned are not only fruitful, but they are restrained to any shape desired, for no sort of fruit trees bear the knife more patiently than those I am treating of. There is some nicety required in thinning and arranging the crop. When the fruits are about the size of Green Gages, it is proper to thin them. Two fruits should never be left together, for they would neither be fine nor well formed; the quantity left to ripen must also depend on the age and strength of the tree. The thinnings have no pulp when of the size above mentioned, and are much esteemed by the confectioner, making excellent preserves.

The fruit which I exhibited to the Society was part of the produce of 1818, which was particularly great in that year, nineteen of the older trees yielded two hundred and seventy-eight dozen of ripe fruit, being nearly fifteen dozen on an average to each tree. This quantity was thus produced: the Citron tree in the greenhouse bore eight dozen, each Citron measuring from fourteen inches and a half to sixteen inches and a half in circumference; three China Orange trees, viz., one in the greenhouse, and two in the conservatory, had sixty dozen of fruit, some of which measured thirteen inches round; six Seville Orange trees, viz., one in the greenhouse, three in the conservatory, and two in tubs, bore one hundred and forty dozen of fruit; seven Lemon trees, viz., three in the conservatory, three in the greenhouse, and one in a tub, had fifty dozen of fruit; and from two Lime trees, which were then in tubs, but which are now in the borders, as above mentioned, twenty dozen of fruit were obtained. The crop was not so large last year, I did not expect it would be so, but the Citron yielded seven dozen of fruit; one of them Mr. Mundy sent to the Society in December last, it was seventeen inches and a half in circumference. The produce of the other different trees was fine, not only as respected its appearance, but the excellence of its quality. The trees this year promise an abundant crop.—*Horticultural Transactions.*

LIST OF NEW AND RARE PLANTS.

Noticed since our last.

I. *ACACIA VESTITA*, Cunningham's *Acacia*. (Pax. Mag. of Bot.) Linnean Class, Polygamia; Order, Monacia; Natural Order, Leguminosæ. This very profuse and handsome flowering species was introduced in 1820 from New Holland, by Mr. Cunningham. It is a highly ornamental plant; the flowers are produced in immense numbers upon pendant racemose spikes, half a foot long; they are of a fine bright yellow colour, and the plant when in bloom resembles a yellow pyramid, being in such masses, relieved by a sprinkling of dark green foliage. The plant grows to the height of six feet, and deserves a situation in every conservatory and greenhouse; it blooms from April to June. This species may be procured at most of the principal nurseries. The plant flourishes well in a mixture of rich loam and peat—and to have plenty of pot room, as it grows rapidly it will require frequent repotting; this is requisite with all the *Acacias*. *Acacia* from *akazo* to sharpen some of the species being very thorny.

2. *APTOSIMUM DEPRESSUM*, The depressed. (Bot. Reg. 1882.) Synonym, *Ruellia depressa*. *Ohlendorfia procumbens*. *Didynamia Angiospermia*. *Scrophulariaceæ*. A very pretty flowering plant, a native of the Cape of Good Hope, from whence seeds were brought by Mr. Eckton. The plant has bloomed with Dr. Lechmann, at Hamburgh. It is a greenhouse undershrub, laying prostrate, and producing a profusion of flowers; they are funnel shaped, more than an inch long, of a pretty blue colour, having each of the five divisions of the mouth of the corolla streaked with black, and the upper part of the throat being white. Mr. Eckton found the plant growing on the shores of the great Fish River, and there blooming from October to December. Mr. Benthain says, this plant assimilates very closely to *Salpiglossis prostata*. He also enumerates six other species with which he is acquainted, namely, *A. abietinum*, *A. eriocephalum*, *A. depressum*, *A. indivisum*, *A. tragacanthoides*, *A. viscosum*. Also he remarks upon five species of a new genus from the Cape, closely allied to *Salpiglossis*, namely, *Peliostomum leucorrhizum*, *P. organoides*, *P. scoparium*, *P. virgatum*, and *P. viscosum*.

The *Aptosimum* is a very desirable plant, and we hope will soon be in the possession of the nurserymen in this country. *Aptosimum*, from *a*, privative; and *ptosimon*, deciduous.

3. *CRATEGUS TANACETIFOLIA*, Tansy-leaved Hawthorn. (Bot. Reg. 1884.) Synonym, *Mespilus orientalis*. Another very ornamental species of this interesting tribe of plants, and which deserves a place in every pleasure ground. The entire family of Hawthorns are at once so highly ornamental and odoriferous, that wherever their introduction is practicable we strongly recommend it. The beauty of their blossoms, their fragrance, and the successive profusion of fruit of various hues and sizes, we think, give them more than ordinary charms. A list and description of considerable extent will be given in our next number. The present species is a native of the higher mountains of Greece; the flowers are large, white, powerfully fragrant; the berries are produced solitary, as large as a May Duke Cherry, yellow, and has the scent of an apple; it is also sweet. *Crategus*, from *Kratos*, strength, in reference to the wood.

4. *CRATEGUS ODORATISSIMA*, Sweetest-scented Hawthorn. (Bot. Reg. 1885.) Synonym, *C. orientalis*. It is a native of the hills near the Black Sea. In this country it produces its very deliciously perfumed flowers in profusion, succeeded by clusters of rich red fruit of considerable size and beauty.

5. *DOUGLASSIA NIVALIS*, Snow Douglassia. (Bot. Reg. 1886.) Pentandria Monogynia. Primulaceæ. The late Mr. Douglas collected seeds of this pretty plant in California, and it has bloomed in the garden of the London Horticultural Society. When Mr. Douglas was travelling across the rocky mountains, in April 1827, at an elevation of twelve thousand feet above the level of the sea, he was struck with surprise with a large patch of brilliant purple, surrounded by snow, which, on a near approach, he found to be the blossoms of this pretty flowering plant. It very much resembles the *Saxifraga oppositifolia*. The plant forms a thick tuft, with branches rising a few inches high, clothed with small flowers of a vivid purple colour. The two plants raised in the Society's Garden, have been cultivated in the greenhouse, but it is probable it will flourish better when treated as alpine plants usually are. Another species, *D. arctica*, found on the shores of the Arctic Sea by Dr. Richardson, is in the possession of Dr. Hooker. *Douglassia*, in compliment to Mr. Douglas.

6. *EPIDENDRUM SKINNERII*, Mr. Skinner's Epidendrum. (Bot. Reg. 1881.) Gynandria Monandria. Orchidaceæ. This very interesting species was sent from Guatemala, in 1835, by G. U. Skinner, Esq., to James Bateman, Esq., Knypersley Hall, Congleton, Cheshire. In the rich collection at that place it has bloomed, under the very skilful management of Mr. Don. The species is a most profuse bloomer, producing a spike of flowers upon every shoot. The flower stem grows erect, producing a spike of blossoms several inches long; flowers pale purple, an inch and a half across. The plant merits a place in every collection. *Epidendrum*, from *Epi*, upon; and *dendron*, a tree, native habitation.

7. *HINISCEUS SPLENDENS*, Splendid flowering. (Pax. Mag. Bot.) Monadelphia Polyandra. Malvaceæ. A very fine flowering species which we find to grow and bloom freely in the greenhouse. It was introduced from New Holland in 1830, by Mr. Frazer, who, in writing about it, said, "I consider this plant the King of all the Australian plants, I have seen it twenty-two feet high." The

flowers this season were nine inches across, literally covering the plant; they are of a bright rose colour. The plant flourishes in a mixture of rich loam and peat, requiring plenty of pot room; most of the public nurserymen possess plants of it. It would make a fine show if planted in a conservatory. *Hibiscus*, from *hibiscos*, the name which the Greeks gave to Mallow.

8. *LASIOPIUS SONCHOIDES*, *Sonchus*-like. (Brit. Flow. Gard.) Syngenesia. Polygamia aequalis. It is a native of Armenia, and is growing in the Chelsea Botanic Garden. The flowers much resembles those of the wild Hawkweed, of a pale yellow colour. *Lasiopus*, from *lasios*, hairy; and *pous*, a foot.

9. *ONCIDIUM LANCEANUM*, Mr. Lance's *Oncidium*. (Bot. Reg. 1887.) Gynandria Monandria. Orchidaceæ. John Henry Lance, Esq., first discovered this plant in Surinam, growing upon a Tamarind tree near to the Government House. Mr. Lance afterwards found many more plants in different parts of the Colony, growing upon the branches or stems of the Tamarind, Calabash, or Sapodilla trees. The plant, however, flourishes freely if tied to the *Brugmansia arborea*, or Orange tree. The flowers are produced upon a stiff branching panicle. Messrs. Rollissons of Tooting, had a plant flowered this season (1836,) the panicle having thirty flowers, each flower being two inches and a quarter in diameter. The sepals are of a greenish yellow colour at their edges, bright yellow in the middle, and regularly marked with broad blotches of crimson and chocolate brown; the lip is of a bright violet at the edge, and a deep violet towards the base. Not only are the flowers so strikingly handsome in colour, but they possess the additional charm of the most spicy fragrance, which they retain, even stronger, after the flowers are gathered and dried; no other *Oncidium* has fragrant blossoms. The plant merits a place in every collection of this interesting tribe of plants. Most of the nurserymen who cultivate orchideous plants have this for sale. The London Horticultural Society presented Mr. Lance with the large Silver Medal, for the introduction of this, and other fine plants. *Oncidium*, from *ogkidion*, a tubercle, referring to two prominences on the lip of the flower.

11. *PEONIA TENUIFOLIA*, var. *PLENA*, Double-flowered fine leaved *Pæony* (Brit. Flow. Gard.) This very interesting variety was presented, by Dr. Fischer, from the Imperial Botanic Garden at St. Petersburg, to Mr. Goklie, nurseryman, at Ayr, Scotland. It is a very desirable plant for the flower border, not rising higher than half a yard, and producing large double flowers of a deep rich crimson colour. The present variety is cultivated in collections around London.

12. *TRIFOLIUM FUCATUM*, Farded Clover. (Bot. Reg. 1883.) Dindelpia Decandria. Leguminosæ. The late Mr. Douglas sent seeds of this annual Clover from California, to the London Horticultural Society. In the garden at Farnham Green, it bloomed, but no seeds were produced, so that the plant is lost from this country. The heads of flowers have a pretty appearance, being of a cream colour towards the centre, and of a rosy-red at the ray.

13. *VERBENA ERINOIDES*; var. *SABINI*, Dwarf *Erinus*-like *Vervain*. (Brit. Flow. Gard.) Synonym, *V. Sabina*. This pretty flowering variety differs from *V. erinoides* in being smaller, closer in its growth, and of more glabrous habit, and rich purple flowers. It was introduced in 1833, from Chili, and is now in most general collections. The plant is quite hardy, and blooms from May to November.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON CHRYSANTHEMUMS.—Being a great admirer of that beautiful and interesting tribe of plants, the Chinese *Chrysanthemums*, and being desirous of procuring any new plants which are considered good, I trust you will excuse me for soliciting a corner in your publication for the following query:—Whether the plants mentioned in your March Number, by Mr. John Carr, as being seedlings,

raised last year by Mr. Robert Freeman, gardener to W. Brereton, Esq., near Holt, Norfolk, can be procured from any of the London nurserymen. If your correspondent, Mr. John Carr, would inform me where I can procure those he has mentioned, and at what price, he will confer a great obligation on me. The following are what I particularly refer to:—A pure white, very double, and the petals naturally arranged in exquisite order—shaped like a double white camellia; a fine changeable buff, well formed; a beautiful fine white, with small thick set petals, having the appearance as if covered with snow. NEMO.

South Lambeth, May 31st, 1836.

ON DESTROYING THE THRIP.—Can you, or any of your Correspondents, inform me of the best means to eradicate the Thrip from the Dahlia flower,—which so much infest it? R. L.

ON THE CULTURE OF PANSIES.—There is no part of your interesting Magazine from which I derive more advantage and information than the answers to correspondents. May I request some of your contributors to let us have a paper on the culture of Pansies. I have seen them at the Chiswick Horticultural Shows, and been surprised that a flower which was in so little request a few years ago, should now be brought to such a wonderful degree of perfection in size, shape, and colour. I have attempted to procure some of the best sorts, but I cannot at all rival the size of the flowers that I have seen exhibited. I have also seen beds of Pansies one mass of beautiful blooms. I am induced to ask information as to the best soil in which they can be grown, and also the best mode of propagation, in order to form a bed. I attempted this year to plant out cuttings in spring, but my bed is not yet covered. A north exposure in summer, and a south one in winter, I find to suit them best, and, as they are so easily transplanted, my intention at present is to plant cuttings in a south exposure this autumn, and to transplant them early in spring to my bed, which is to the north. If, however, any of your readers can give us practical information upon the point, it will, I am sure, be acceptable to many persons,

I remain, &c. &c.

23rd July, 1836.

A SUBSCRIBER.

ON BONE MANURE, &c.—You will much oblige a Subscriber by inserting in the September Number any information you may possess on the subject of bone manure as applicable to gardens. It is known to have been successfully employed in agriculture, and would be very serviceable in gardens by not requiring the beds to be disturbed, as is done, with great injury to some of the plants, when digging in manure. The information wished for would embrace the following points:—1. The kind of soil for which it would be most beneficial.—2. The season and mode of applying it, particularly as to quantity.—3. Whether better adapted for any particular plants than this; and lastly—4. The address in London of the persons who furnish the article, with the price. TONBRIGTIENSIS.

P.S. —The liquid manure, so generally used in Flanders, would, no doubt, be very useful as a surface manure, but it is not easily, if at all, attainable in this country, and is very offensive.

ON ANSWERING QUERIES, &c.—I venture to assert, in the name of the greater half of your readers, that if you could induce your contributors to answer queries, or would shortly answer them yourself, it would render your publication still more valuable to unscientific subscribers,—who, without putting questions themselves, would be great gainers from the doubts and suggestions of others. You must understand this remark is applied to questions which refer strictly to the *cultivation* of plants, for you cannot be expected to furnish your readers with *taste* as well as *knowledge*; or to fix upon the prettiest flowers for those who cannot choose for themselves. I have had great difficulty in procuring another *Erinus lychmidea*, and shall have still more in keeping it, unless you can give me some instruction as to soil, heat or cold, quantity of water, &c. A. B. L.

Unless an immediate reply to a query was desired, we have usually omitted the answer in the same month, judging it better to let the subject be brought before our readers, and afford them a sufficient opportunity of favouring our querist correspondents with replies, and thus a probability existed of any query being answered much more satisfactorily than if we gave our individual opinion only. We



Antirrhinum
variegatissimum



Impatiens
pubescens



Calceolaria
maculata

shall be glad if our readers would look over the queries in back Numbers, and forward to us answers which may meet the wishes of those proposing the queries. In case we get none, we will attend to the matter ourselves.—CONDUCTOR.

REMARKS.

ORANGE TREES.—A large quantity of Apples having been left in an Orangery, and suffered to become rotten, the bad air arising from them, caused the leaves of all the Orange trees to fall off.

Further proof of the continuance of germination in seeds has been received, by the growth of some taken from tombs, dated in time of Marcus Aurelius, and also Clodwig.—*Country Paper*.

TULIPS.—The well known taste of the Dutch for Tulips is not diminished; the new Tulip called "The Citadel of Antwerp," has been purchased for 16,000 francs, (£650 sterling,) by an amateur at Amsterdam.

Horticultural Societies are springing up in almost every town and village in the kingdom—it shows a good spirit has manifested itself amongst the higher classes. A Horticultural Society has been formed at Yeovil, in Somersetshire; at Kingscote, there has been already two meetings; one has also been formed at Thornbury, in Gloucestershire.

ON INSECTS INFESTING ROSE TREES, &c.—When any Rose tree or other shrub is infested with the green fly, take equal proportions of sulphur and tobacco dust, and after moistening the plant, dust it over with the mixture. Tobacco water from the Tobacco Manufactory answers the same purpose, being mixed with twice the proportion of water. As the latter is not easily procured in some places, the above mixture may generally be obtained.

Rosa,

HORTUS SICCUS.—In studying Botany, it is of advantage to prepare a book of dried specimens of plants; such a book is termed *Hortus Siccus*, a dry garden. Choose from a plant a specimen having flower, bud, leaf, and if possible, seed. Lay it upon thick blossom blotting paper, placing one or two sheets of the same over it; upon which, unless the specimen be very succulent and thick, lay another specimen, and then more paper. Care must be taken to lay each part of the specimen smooth and flat upon the paper; no part of the specimen should be under another part; Cut off any portion that is inconvenient to retain; If any bud or flower be too thick, pare off some of the under side to make them lie properly. When they are arranged, put a heavy weight upon them,—after a few hours, carefully shift the position of each specimen to a dry part of the paper, and replace the weight; repeat this, changing the paper if necessary, until the specimens be perfectly dry. Prepare a solution of gum with a little camphor in it, and secure each specimen to a page in a folio of cartridge or whity-brown paper; then write under each the name of the plant, class, order, tree, shrub, herb, country, &c. In the case of any specimen being very full of sap, a hot iron may be passed two or three times over the covering of paper—taking care not to burn it.

FLORA.

HOT WATER SYSTEM OF HEATING PLANT HOUSES, &c.—I have latterly seen an experiment tried in the use of glass tubes instead of the cast iron ones, which answered far better in all respects, giving out the heat much quicker, affording a higher temperature, and retained it for a longer period. The glass was of the commonest kind, and quite cheap. It had a very neat appearance;—I will obtain the particulars of cost and construction, for a subsequent Number of the *Cabinet*.

R.

REFERENCE TO PLATE.

1. *Antirrhinum majus*, var. *carvophylloides*, The large Carnation-like flowered Snapdragon. This very striking variety of Snapdragon, we received a specimen of, from Mr. Bridgford. We have seen several plants of it in bloom, it is very strikingly handsome, and deserves a place in every flower garden. It is quite hardy, and a profuse bloomer.

3. *Anagallis Philippoti*, Mrs. Phillip's Pimpernel. This very superior flowering Pimpernel, was raised by the Lady whose name is attached, and in compliment to whom, is the specific name most deservedly given. It is by far the most splendid flowering *Anagallis* in this country. We saw it in profuse bloom at Mr. Joseph Plant's, Florist, Cheadle, Staffordshire, and Mr. Plant informed us, that as soon as a sufficiency of plants was ready for sale, he should advertise it in the *Cabinet*.

3. *Calceolaria maculata*.—This very handsome plant was raised by Mr. Joseph Plant, it is a shrubby variety, and Mr. Plant having succeeded in obtaining shrubby kinds marked with dark spots, most deservedly merits the thanks of a Floricultural Public. The plant we took the above specimen from, was *profusely in bloom*, and was strikingly handsome. In addition to the present variety, we had the pleasure of an enraptured view of a considerable number of Shrubby and Herbaceous kinds, now blooming for the first season, and far exceeding all we had ever seen. Mr. Plant will give due notice when they will be ready for sale.

FLORICULTURAL CALENDAR FOR SEPTEMBER.

Annual flower seeds, as *Clarkia*, *Collinsia*, *Schizanthuses*, Ten-Week Stocks, &c., now sown in pots and kept in a cool frame or greenhouse during winter, will be suitable for planting out in open borders next April. Such plants bloom early and fine, and their flowering season is generally closing when Spring-sown plants are coming into bloom.

Carnation layers, if struck root, should immediately be potted off.

China Rose cuttings now strike very freely; buds may still be put in successfully.

Mignonette may now be sown in pots, to bloom in winter,

Pelargoniums, cuttings of, may now be put off; plants from such will bloom in May.

Pinks, pipings of, if struck, may be taken off and planted in the situations intended for blooming in next season.

Plants of Herbaceous *Calceolarias* should now be divided, taking off offsets and planting them in small pots.

Verbena Melindris (*chamadrifolia*). Runners of this plant should now be taken off, planting them in small pots, and placing them in a shady situation. It should be attended to as early in the month as convenient.

Plants of Chinese *Chrysanthemums* should be repotted if necessary; for if done later, the blossoms will be small. Use the richest soil.

When *Petunias*, *Heliotropium*, *Salvias*, *Pelargoniums* (*Geraniums*), &c. have been grown in open borders, and it is desirable to have bushy plants for the same purpose the next year, it is now the proper time to take off slips, and insert a number in a pot; afterwards place them in a hot-bed frame, or other situation having the command of heat. When struck root, they may be placed in a greenhouse or cool frame to preserve them from frost during Winter. When divided, and planted out the ensuing May in open borders of rich soil, the plants will be stocky, and bloom profusely.

Tigridia pavonia roots may generally be taken up about the end of the month.

Greenhouse plants will generally require to be taken in by the end of the month. If allowed to remain out much longer, the foliage will often turn brown from the effects of cold air, &c.

Plants of *Pentstemons* should be divided by taking off offsets, or increased by striking slips. They should be struck in heat.

Pansies.—The tops and slips of *Pansies* should now be cut off, and be inserted under a hand-glass, or where they can be shaded a little. They will root very freely, and be good plants for next season.

THE FLORICULTURAL CABINET,

OCTOBER 1st, 1836.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.—DIRECTIONS FOR PRESERVING PLANTS.

BY A LADY.

It is unnecessary to enumerate all the advantages resulting from the possession of a collection of preserved plants, as they can be fully appreciated only by a person who has made considerable progress in the study of Botany. But the beginner requires to be informed, that nothing can more materially aid him in his endeavours to become familiar with the objects which vegetation presents to his view, than such a collection, to which he can at all times refer, either for refreshing his memory, or for instituting a more minute examination than he had previously made. Plants are generally preserved by drying, and a collection of this kind is called a *Hortus siccus* or *Herbarium*. Various methods are in use for drying plants, but the following, being among the most simple and efficacious, and attended with little difficulty, is here preferred.

The articles necessary for the accomplishment of the object in view are, a quantity of smooth, soft paper, of large size (16 quires perhaps); eight boards of the same size, about an inch thick, of hard wood; four iron weights, or pieces of lead, two of them about forty pounds weight, the others half that number. Or in place of these weights a number of clean bricks may be used, or in short any heavy bodies of convenient form. Along with these articles, a botanical box is necessary. This box is made of tin, and varies in size, from nine inches to two feet in length, according to the taste and avidity of the collector.

In gathering plants for this purpose, such as are smaller than the size of the paper are to be taken up roots and all. In many cases, portions only of plants can be preserved, on account of their size, and when the most essential parts are to be selected, including always the flowers. Plants to be preserved are to be gathered in dry weather, and immediately deposited in the tin box, which prevents their be-

obtaining shrivelled by evaporation. If gathered in wet weather, they must be laid out for some time on a table or elsewhere to undergo a partial drying. When roots have been taken up along with the stems, they ought to be first washed, and then exposed for some time to the air.

Let us now suppose that a dozen specimens are procured. Over one of the boards lay two or three sheets of the paper, on the uppermost of which spread out the plant to be dried, unfolding its various parts, not however, so as to injure its natural appearance. A few of the flowers and leaves ought to be laid out with particular care. Over this specimen lay half a dozen sheets of paper, on the uppermost of which lay another plant as before, and so on successively, until the whole are disposed of. A few sheets are then laid upon the last, and a board placed over all.

Plants, viewed with reference to drying, may be divided into two classes, the one comprehending those which being thin, soft, and flexible, require little pressure to reduce them to a level, the other including such as being stiff and thick require much pressure. Supposing the above plants to have been of the first class, we lay upon the upper board one of the smaller weights. A series of more stubborn specimens being, in like manner, placed between other two boards, we lay one of the larger weights upon them.

Should more specimens be collected next day, they are disposed of in the same manner; and thus successively. At the end of three days generally, the plants first laid in are to be taken out, together with the paper about them. They are to be laid in fresh paper, three or four sheets being placed between every two plants, and the whole put between two boards, with a weight over them. The second series is similarly treated next day, and so on. The paper from which the plants have been removed is to be dried for future use.

There will thus be four sets of plants: two in the first stage of drying, and two in the second stage. The plants of the second stage sets should be taken out about three days after they have been deposited, and after dry paper has been put about them, returned to their places. The paper may thus be shifted until the plants be perfectly dry, when they are finally removed. Each plant is then placed in a sheet of dry paper, and along with it is deposited a slip of paper, on which are written the name of the plant, the place in which it was gathered, the time of gathering, the soil, and such other circumstances as may tend to elucidate the history of the species. Thus prepared, the plants are packed up in bundles, which gradually enlarge their dimensions, or increase in number till the end of the season.

Having in this manner arranged a certain number of plants, the collector has now to arrange them. For this purpose he has to procure a quantity of good stout writing or printing paper of large size, folded into folio, which is to be stitched in coloured covers, making fasciculi of five or six sheets each. A quantity of fine large post or other writing paper, in half sheets, folio size, cut round the edges, is also to be at hand. Let a number of narrow slips of different lengths be cut from a piece of the same paper, and let some prepared isinglass or dissolved gum be in readiness, together with a camel-hair pencil. Take a dried plant, lay it upon a leaf of the fine cut paper, then fasten it down by means of a few of the slips, to which isinglass or gum has been applied, laid across the stem and some of the branches. Two or three slips are generally sufficient for a plant or specimen. In this manner all the dried plants destined to form part of the herbarium are treated. Write the name of each species on the top of the leaf, and transcribe the notice respecting the place in which it was gathered, &c., at the bottom. Then arrange the plant according to system, and lay one between every two pages of the fasciculi. The fasciculi are formed into bundles, by being laid alternately up and down upon each other, as they do not lie conveniently when the heads of the plants are all at the top of the bundle, because the stalks and roots are thicker than the flowers. These bundles, consisting each of ten fasciculi, may be covered by pieces of paste-board tied by strings. The collection is kept on the shelves of a cabinet, or in a chest. To prevent the attacks of insects, it is necessary to keep beside it a piece of sponge soaked full of rectified oil of turpentine; and to ensure it against decay from damp, it ought to be kept in a dry and well ventilated place.

The above is an orderly method of forming a herbarium; but many other expedients are resorted to. Most plants dry sufficiently well between the leaves of old books, and many collectors save themselves the trouble of forming a neat collection, by huddling up their specimens in the least expensive or laborious manner.

Another method of putting up dried plants is the following:—The specimens are fastened to leaves of stout paper of uniform size; the species are then arranged in order, and all those of the same genus are placed within one or more sheets of paper, on the outside of which the generic name is written. The generic fasciculi are then collected into bundles, on which are written the names of the classes and orders. Some persons keep their specimens loose, within sheets of paper. This method is the most convenient for the minute examination of the plants, but has disadvantages which render it inexpedient in ordinary cases.

ARTICLE II.

ON STRIKING CUTTINGS OF STOVE AND GREENHOUSE PLANTS.

BY MR. THOMAS ROGERSON, DALE COTTAGE, WATERFORD, IRELAND.

BESIDES the usual supply of the different sorts of earth, &c. there is another article necessary to be provided before we begin the business of making cuttings; which is, a few dozen of small bell glasses, (the white glass is best,) of as many different sizes, as are the pots in which the cuttings are intended to be planted; they should be fitted to the pot so as to rest on the inner side of it, about an inch below the rim; by observing which circumstance, when the pot is filled with earth, the glass will have room sufficient to sink a little into it, so as to perfectly exclude the external air, which is of very essential importance to the cutting while in a dormant state, that is, from the time they are put in, until they begin to grow. Or they may be covered by means of a flat piece of glass being placed over the top of the pot, the cuttings being inserted low enough in the pot to admit of it being done without the points touching the glass. I prefer this method to the former.

The cuttings of stove and greenhouse plants may, with pretty tolerable success, be made almost every season of the year: yet, from April to August is certainly the most proper; as the plants are at that season plentifully supplied with young wood, which in most species, that I am acquainted with, produce roots when made into cuttings much sooner, than the old wood will if used in the same manner. When the day is fixed upon for this business, let a quantity of pots of the proper size be prepared; I seldom use larger than those at one shilling, or for the largest cuttings, those at one shilling and six-pence per dozen, or as they are generally called forties, and forty-eights. They must be drained in the manner already directed for seeds, for the purpose of keeping the bottom of the pot as free from stagnated water as possible; and then, as wanted, about half filled with the compost best suited to the plant intended to be propagated, to grow in for a few weeks, when first struck, and the remaining part with the best loam that can be procured, to insert the cutting in when ready. On the purity and clearness of the loam, I think, depends in a great measure the success of many of the tenderer kinds of cuttings; particularly those which are obliged to be kept in moist heat, as it is, when contaminated with other composts very liable in these situations to cause damp and rottenness, by the particles of putrifying matter generally contained in mixed earths; and the properties of which are

put in motion, by the application of heat. As an exception to this rule, may be added sand; which is of very great utility to mix with the loam, should it happen to be rather stiff for the nature of the cutting: but then, the sand proper for this use is of so pure a nature in itself, that it is evident, it cannot have the effect noticed above in regard to mixed soils.

In the choice of cuttings, preference should be given to the firmest wood of the same year's growth; and of these, only such whose leaves have attained their full size, and proper colour, which are generally to be selected from the lateral shoots; as the upright leading ones are mostly too luxuriant to make good cuttings. I have observed that cuttings of many plants, if taken from the lateral shoots, never become proper erect stems; but are inclined at all times to form an irregular, bushy, weak head: this is not of small importance to such collectors as cultivate plants *merely* for the flower; as such heads generally produce them sooner than luxuriant leaders. To the lovers of handsome erect plants, I would, however, recommend to choose their cuttings from the upright shoots, early in the season, before they acquire that luxuriance of growth so unfit for the purposes of propagation. The tops of the shoots are to be preferred, unless they happen to flag before used. To prepare them for insertion, most of the leaves must be trimmed off close to the stem, leaving only a few at the top, to allow a free respiration of the air necessary to the life of the plant. This is a most essential article in the art of making cuttings, particularly those of evergreens; for if they are deprived entirely of their leaves, or that they otherwise flag, or occasionally fall off soon after they are put in, there will be little or no chance of their growing. The reason is obvious, because the inherent sap of the cutting, being deprived of these organs of respiration that kept it in motion, and the cutting having no roots by the efforts of which to produce new leaves, the sap, consequently, becomes stagnated in the pores of the wood; which, like the stagnation of the blood in animals, in all likelihood prove mortal, by occasioning an immediate mortification.

In shortening each cutting to the most convenient length, care must be taken to do it with a clean cut, in a transverse direction; and by no means should they be left exposed, or to lie any considerable time before planted. In planting, a small dibble or other convenient instrument should be used to press the loam sufficiently tight, to the base of the cutting, as that is the principle part to be made fast; as soon as the whole are inserted, and the surface of the mould made level and a little firm, give them a gentle watering to settle them;

they should be left to soak about a quarter of an hour, and then be covered with a bell-glass, which should be pressed pretty tight so as perfectly to exclude the outward air. If there are several cuttings of the same sort, they may be put in one pot, unless they happen to be very large, or curious sorts: but I would advise to have each species kept in a separate one, on account of the difference in time that some of them require to strike roots; and also, that any scarce or valuable kind should be put only one in a small pot, as they then are not liable to be injured so much by damp; neither do they require to go through the precarious operation of separate potting, so soon after been struck.

Should it be requisite to have a considerable quantity of cuttings made at the same time, it would be proper to have a one-light box, with close glasses, (such as are used for raising early cucumbers,) placed on a moderate hot-bed ready to receive them. It should be covered with saw-dust or clean tan, about a foot deep, in which to plunge the pots: but if there are only a few done, they may be plunged in any frame among other things, provided there is a moderate heat.

They will now require the most particular attention as to watering and shading. The water must be given twice or thrice very moderately until the earth becomes sufficiently moist, which, if once so, will retain the moisture for a length of time, by being covered with the glass: but the shading is the principal care whenever the sun's rays fall on the glasses, as nothing will create rottenness sooner than letting the leaves flag, and lie upon each other, which will be the positive consequence of the want of shade. The most advisable method to do it, is, in my opinion, to have a few large sheets of strong paper, to lay over the glasses within the frame; which at the same time that it shades the cuttings, does not prevent the sun's rays from entering the frame and clearing off any damps that may be accumulated therein: whereas, if mats are laid on the outside of the frame light, it is evident they will tend to have the direct contrary effect. However, in the course of a week or fortnight, they will be able to withstand a little of the rays of the morning and evening sun.

While in an active state, they should be kept rather dry, but not to an extreme; else the bark will become shrivelled and occasion a very smart falling off amongst them; on the other hand, should they be kept in an over moist state, the consequence, would not be less disagreeable on account of the damp, occasioned by the air being so closely confined under the glasses; in this case it would be of infinite service, to have the glasses wiped with a dry cloth about once

a week, which is quite sufficient for hot-house cuttings, as they are not so liable to suffer from this cause, as those of greenhouse plants.

As the heat of the bed declines, it will be necessary to have another properly tempered ready, in which to plunge them, when requisite; or otherwise, let old be renovated with linings of fresh warm dung, but in such a manner, as to avoid creating any violent degree of heat or strong rank steam in the bed, as it is better to do it often and but slightly at a time, it being a trifling increase of labour, compared with the probable consequences. By this management one may expect to have some of the free growing kinds well rooted, and making rapid progress, in the course of a very few weeks; when such is the case, it will be necessary to give a little air by taking off the bell-glasses at night, and to keep them a little moister than before. If they endure this pretty well for a few days, they may be left off entirely, which will harden and prepare them by the time in which it may be thought convenient to part and pot them separately.

In taking the bell-glasses off at night, it is necessary to observe that from their closeness they sometimes occasion the cuttings, more frequently the harder sorts, to produce young leaves and even shoots, before they have sufficient roots: if at any time these should be mistaken for well rooted plants, and their glasses taken off accordingly, in a few hours they may be perceived by their leaves beginning to flag; in which case the glasses must be immediately replaced; otherwise, if neglected, these tender shoots will be utterly spoiled, and it will be a very great chance whether the cuttings will ever produce more or not.

Should the above circumstance happen, they will be observed to be more impatient of damp afterwards: as indeed will all those be which are growing; the glasses should therefore be more frequently dried, and kept off until the leaves, &c. which were under them become dry by evaporation; lest we risk their success, I may say perhaps, their existence, by rotting the first weak efforts towards active life.

(To be continued.)

ARTICLE III.—ON MYRTLES.—FROM AN OLD AUTHOR.

MONS. LIGER describes the Myrtle as follows: It is a shrub, that from its root shoots forth little branches, garnished with small, green, soft, shining, and pointed leaves, among which grow flowers called *Pentapelous*, or consisting of five leaves, white, odoriferous, and in the form of a Rose. These are supported by an indented cup, which grows to be a berry as big as an olive, with a crown on the top, divided into several cells full of seeds, shaped like little kidneys.

Mr. Mortimer distinguishes them into the Broad-leaved Myrtle, and the Narrow-leaved Myrtle, which are both very odoriferous shrubs; but he esteems that which affords plenty of double white blossoms in Autumn, as the best: And also a sort of Myrtle with a large leaf, called the *Spanish Myrtle*, which will endure all weathers without Shelter: And another sort of Myrtle that comes from Carolina and Virginia, which is the hardest of them all; the berries of which being boiled, yield a substance of a green colour, sweet or pinguid, which they there scum off, and make candles with, which do not only give a clear light, but a very agreeable scent. These will all endure hard winters with a very slender defence.

Mr. Bradley distinguishes Myrtles as follows: the Large-leaved Myrtles, which are, the Nutmeg Myrtle, the Nutmeg Myrtle with variegated leaves, and that with the double blossom, the Orange-leaved Myrtle, the Portugal Myrtle, and the Spanish broad-leaved Myrtle.

The Smaller-leaved Myrtles, he distinguishes into the Bird's-nest Myrtle, the Box-leaved Myrtle, the Rosemary-leaved Myrtle, the Silver-leaved Myrtle, the Thyme-leaved Myrtle, and the Upright Myrtle.

All these, he says, are with ease propagated by cuttings, except the Orange-leaved Myrtle, and that with the double blossom, which are much better increased from layers.

The best time for laying Myrtles, he says, is in May, (but Mons. Liger says in March, which layers should be only the youngest shoots; (Mons. Liger says, the straitest branches, and those whose rind is smoothest) which, after the earth has been well stirred, must be bent into the earth, and often watered, and they will strike root, and be fit to take off from the mother plant the spring following: But Mons. Liger says, the September following.

Mr. Bradley says, if you lay down shoots of a year old, they will never take root, with all the art that can be used.

As for multiplying them by cuttings, he advises also, that they be young and tender, taken from the Myrtles in July: That the leaves must be stripped off two inches from each cutting, and set in pots of fine light earth, two inches deep, and an inch one from another, and frequently watered till they have taken root, which will be about the latter end of August. Thus they ought to remain till the second March before they are transplanted into single pots.

Mons. Liger says, that in order to multiply them by slips cut from the roots, you must lay open the root of the Myrtle from whence you design to take a branch; cut it off as close as you can, that there

may be the more little roots about it. That this is to be done either spring or fall : that the pots they are planted in, should be two-thirds kitchen-garden soil well sifted, and one-third hot-bed mould.

Mr. Mortimer says, Myrtles produced from layers are the most hardy ; and those from seeds most tender : But neither he, nor Mr. Bradley, nor Mons. Liger gives directions for multiplying them by seed.

He says, that as to the Carolina or Virginian Myrtle, it thrives best near the sea, and is raised either of seeds or layers. He advises in planting them, that they be not too close together, nor in too moist a place ; for that these will cause them to grow mouldy. That they should be transplanted in the spring of the year, that they may have time to get root in summer, that the tree may be supplied with sap sufficient to nourish it in winter.

All agree, that they should be well watered. Mr. Bradley says, when they have once got large roots, they delight in water, and should be frequently refreshed with it. Mons. Liger says, they must be frequently watered in the summer, because the humidities rectified by the heat of the sun, help layers to take root the sooner. And Mr. Mortimer says, Myrtles must be well watered summer and winter, or else they will not take root well.

Mr. Bradley says, the Myrtle delights so much in moisture, that he has known a pot of it set in a shallow bason of water, on the inside of a window, exposed to the South, that has shot above four times as much in one summer, as any that have stood abroad ; and has continued growing at that great rate for several years, without renewing the earth in the pot, by only supplying the bason with fresh water as it wanted ; but the shoots of this plant were very tender.

Mons. Liger advises to plant them in a place where the sun can come at them, and to water them often : and says, you may know when they want it by the fading of the leaves.

Mr. Bradley says, in disposing of Myrtles, or any other plants in the shade, you must do it so, that no other trees drop upon them, nor must they be confined in too close a place, but have a free air both round about them and above them, or else the shoots they make will be very slender and weak.

Mons. Liger says, Myrtles naturally require the use of the shear, and are to be clipped by art ; and if by any accident any of the branches happen to wither, they are to be cut off to the quick.

Mr. Bradley directs, that about the middle of April, such old trees as have been neglected and have thin heads, should be pruned about the roots, and have fresh earth put to them ; and that the branches

of their heads should be cut within three or four inches of the stem, and should be pruned about the roots; and that by this ordering, they will prepare to shoot by that time they come abroad; and if they have water and shade enough, will make handsome plants that summer.

Mr. Bradley informs us, that Mr. Whitmil shewed him some Myrtles that were inarched one upon another, and had taken very well; among these they were the Striped Myrtle upon the Plain; the Nutmeg Myrtle upon the Upright; the Large-leaved kinds upon the Small; and the Double-blossomed upon several sorts: which brought to his mind some thoughts he once had of making a pyramid of Myrtles, the base of which should be garnished with the Spanish Broad-leaved Myrtle, to be followed with the Nutmeg; and next to that the Silver-edged Myrtle, and upon that the Upright sort, to be succeeded by the Rosemary and Thyme-leaved kinds, upon which there might be a ball of the Double-blossomed Myrtle, which would make a fine appearance.

At Sir Nicholas Carew's, at Bedington, is a Myrtle of the Spanish Broad-leaved kind, which is above eighteen feet high, and spreads about 45 feet. Mr. Bradley says, if to this are joined those Myrtles that he has seen growing in Devonshire, in the natural ground, he cannot see any occasion for any great use of fire for these sort of plants, as is common in greenhouses: but plants that are in pots are much more liable to suffer by the frost, than if they were in the naked ground; and the more woody the plants are, the more hardy they are.

ARTICLE IV.—ON PRESERVING GERANIUMS IN A SMALL SPACE THROUGH WINTER.—BY LOUISA.

GARDENERS are, in the spring, often at great trouble in collecting a number of cuttings of greenhouse plants, especially of Pelargoniums; and after these have struck, and the plants thus formed have flowered through the summer, they must, when Autumn has drawn near its close, be put into some place of safety for winter. At those places where there is not proper accommodation for them, the gardeners having a regard for the plants they have reared, are often much perplexed in bringing them through the winter,—in consequence, when the time has arrived at which the plants must be transplanted from the borders into pots, and after the knife has been used freely upon them, they are often crowded together in ill-lighted rooms and other places where they can scarcely draw breath, and where numbers die,

and those which survive the winter are few and ill-favoured. To endeavour to remedy this evil is the object of this article;—the plan is a very simple one. About the time at which greenhouse plants are taken from the borders, go over them and take from them what cuttings they can spare; (some may be cut to pieces, and made the most of;) then take pots eight or nine inches in diameter, put twenty or thirty cuttings in each, and plunge the pots to the rim in a hot-bed which has but slight heat; cover the pots of cuttings with hand-glasses, or a small frame, and in a short time the cuttings will have struck root. They may remain there as long as the weather is mild—when the frost sets in, remove them to a room, or any other place where they may be protected from the cold; a small window with a shelf in front, will contain 200 plants. If the same window were employed for holding full sized plants, two common sized *Polargoniums* would fill it. About the middle of March or the latter end, plant each rooted cutting in a small pot, and put them into a shady place until the season of transplanting them.

ARTICLE V.—ON THE AYRSHIRE ROSE.—By CLERICUS.

BEING much pleased and interested in the culture of the Ayrshire Rose, when grown as a climber, or to form a splendid bush, I transcribe an account of its history, &c., for insertion in the *Cabinet*, assured it will be interesting to its readers.

“The beauty and usefulness of the Ayrshire Rose are not sufficiently known. The rapidity with which it covers walls and fences, or the sides of unsightly buildings, with its thick mass of branches and foliage, and the brilliant effect of its numerous white flowers during the month of July, in situations where it is well exposed to the sun, and particularly when trained over the roofs of cottages or garden seats, are such valuable properties that no ornamental grounds should be without it.

A History of the Ayrshire Rose has been published by Mr. Neill, the Secretary of the Caledonian Horticultural Society, in a paper in the *Edinburgh Philosophical Magazine*; and communications which I have received relative to the plant from Mr. Robert Austin, of Glasgow, and Mr. George Douglas, of Rodinghead, near Kilmarnock, have enabled me to add some few particulars to Mr. Neill's account. It is stated to have been raised (in what manner I shall hereafter observe on) in the garden of John Earl of Loudon, at London Castle, in Ayrshire, in the year 1768 or 1769. Mr. Douglas, who at that period had the charge of the estate and gar-

dens at Loudon, has informed me that he gave a plant of the Rose to his friend Mr. Charles Dalrymple of Orangefield, near Ayr, from whose garden it was introduced into the nurseries in his neighbourhood, as well as at Glasgow; it was at first called the *Orangefield Rose*, but subsequently received the more general appellation by which it is now known. It has been considered by some as a native wild plant of Ayrshire, but I believe there is little doubt, that it was first observed in the gardens of that county, where possibly the original plants, or at least some of their earliest offsprings, are still to be seen. Mr. Woods did not consider it as indigenous in Britain, since in his *Synopsis of the British Roses*, communicated to the Linnean Society in 1816, and subsequently published in their *Transactions*, he has not even mentioned it.

From Scotland, it reached the nurseries round London, but was not noticed by any of our periodical works on plants till 1819, when Dr. Sims published an account of it in the *Botanical Magazine*. His description was made from specimens of plants which cover a building, in the garden of the late Sir Joseph Banks, at Spring Grove; these came from the nursery of Mr. Ronalds, at Brentford, and were planted in February, 1811.

The Ayrshire Rose has slender branches, which grow rapidly in one season to a very great extent (thirty feet and upwards), but they are so weak as absolutely to require support; the older branches are greenish brown, with a few small pale falcate aculei growing on them; the younger branches are green, with a tinge of purplish red, and armed with falcate red aculei; those branches which grow to any extent are so slender and flexible, as to hang down almost perpendicularly from the last point to which they are nailed or tied. The smaller side branches are very numerous, and are abundantly covered with leaves, so as to form a thick close mass; the plant rarely throws up strong surculi, or root shoots. The leaves are deciduous; the stipulæ long and narrow, red in the centre, edged with glands, but otherwise smooth; the petioli have a few uncinatæ aculei and some small glands scattered over them; the foliola are either five or seven in number, the lower pair being much the smallest, they are flat and smooth, shining on both sides, but paler though without glaucousness underneath, ovate, pointed, and simply serrated; the edges, and particularly those of the vigorous leaves, being sometimes tinged with red. The flowers are produced abundantly from the beginning to near the end of July; they rarely grow singly, but are often threes, and on strong shoots the cymes contain many flowers, from ten to twenty or more; the bractæ are tinged with

red, pointed, waved, edged with glands, and bent backwards; the peduncles are long, fine, and covered with glandiferous setæ; the germen (tube of the calyx) is elliptic, contracted at the top, and covered with setæ, but not so much so as the peduncle; the sepals (leaves of the calyx) have a few fine pinnæ, are covered with glands, have a point at the end extending beyond the bud before it expands, and when the flower opens, they are reflexed; the bud is cream-coloured, the petals are large, obcordate, expanding flat, and their edges are somewhat lapped over each other; the stamina are numerous, and, bright yellow; the stigmata are united, porrect, and hairy. The scent of the flower is very pleasant. The fruit when ripe preserves nearly its original shape, is elongated, and not much increased in size.

The characters of the common *Rosa arvensis*, which do not agree with the preceding, are these: the plant, wherever situated, is not inclined to grow to the same extent; the branches are stronger, thicker, and more able to support themselves; the younger shoots have more the appearance of surculi (which often arise from the root), they are glaucous, on the exposed side of more blueish green, and on the exposed side purple and deeper coloured; they bear fewer leaves, and the bush is consequently not so thick and close. The foliola are most frequently seven, and, under similar circumstances, smaller; they are usually broader in proportion to their length, somewhat folded, not flat, more rugose on both sides, an opaque green above, pale, glaucous, and without any appearance of shining beneath, with serratures less sharp, and the mid-rib occasionally hairy on the under side. The flowers appear at the end of June, and often grow singly; the peduncles are thicker and stronger; the germen is shorter and thicker, less contracted at the top, and usually smooth; the sepals are either without pinnæ or with only very slight ones, they frequently have no terminated point, and when the flowers open, are not reflexed; the flower at its first opening is cupped, and not flatly expanded; the stigmata are quite smooth, not hairy. The fruit, when ripe, is considerably swollen, and generally nearly globose, but its shape varies in different plants.

The differences between the Evergreen and the Ayrshire Rose are also capable of being distinctly described. The Evergreen Rose is by no means a free grower, and though it extends, when trained against a wall, to some distance, it does not do so, rapidly; its shoots are equally slender, but not so weak, and they are rather more purple; it forms, however, with its branches and leaves, a very thick bush. The leaves are evergreen, and though similar in shape, are

readily distinguished by being much more glossy and shining on both surfaces, which occasions them to appear altogether of a darker hue; they are also of a thicker substance, have finer serratures, and are more inclined to bend back. The flowers appear from the middle to the end of July, they are less numerous, and generally weaker, but accord in all other points.

The character given of the Ayrshire Rose by Mr. David Don, in Mr. Neill's paper in the *Edinburgh Philosophical Magazine*, agrees well with the plant; but it is not sufficiently extended to distinguish it from *R. sempervirens*. As compared with *R. arvensis*, he describes the leaves of that species as ovate, and of the Ayrshire as elliptic, and represents the fruit of *R. arvensis* as globose, with peduncle, nearly smooth, whilst the Ayrshire Rose has ovate fruit and glandiferous peduncles. I am not aware that the *R. arvensis* has ever been found with peduncles approaching to smoothness, and therefore suppose that the description was made from a plant late in the autumn; for when the fruit approaches maturity the setæ drop off the peduncles, and leave them nearly smooth. Mr. Neill, though he considers the Ayrshire Rose nearly allied to the *R. arvensis*, seems to suspect that it may be the *Rosa prostrata* of De Candolle; but that plant, according to the description of it in the works referred to, has a nearer resemblance to *R. sempervirens*; it is besides a weak growing shrub, and has its flowers usually solitary and not in cymes.

Mr. Neill states that the seeds from whence the Ayrshire Rose was obtained were part of a packet received from Canada or Nova Scotia, and it appears by his account, that several plants of it were produced together. Mr. Douglas further mentions, that a person, under the direction of Dr. Hope of Edinburgh, was sent to Canada to collect hardy plants and their seeds, for several noblemen and gentlemen in Scotland, who defrayed the expense of the collection by subscription; and that the Ayrshire Rose was raised, in 1768 or 1769, from seeds in the Earl of Loudon's share of the produce of this mission.

No Rose having the slightest resemblance to the Ayrshire, or to which it can possibly be assimilated, has been brought to us, or described, from the American continent; and as we are tolerably well acquainted with the plants of the northern part of that country, it may, I think, be safely alleged, that the seeds could not have been those of an indigenous Rose of America.

Mr. Lindley is perfectly correct, in his notice of the Ayrshire Rose, in observing that two sorts have been cultivated and sold in the nurseries under that name; the fact is, that one of these is the common *R. arvensis*, and agreeing, as I have before stated, so exactly

with the figure in the *Botanical Magazine*, it is not surprising that the mistake has hitherto remained uncorrected ; but to his opinion, that the *Rosa capreolata* of Mr. Don, which is the true Ayrshire Rose, is so identified with *R. sempervirens*, as not to differ from it in any respect, or, in other words, is the same thing, I cannot assent ; Mr. Lindley was induced, I apprehend, to give this opinion from finding the botanical character of *R. capreolata*, as drawn up by Mr. Don, accord with *R. sempervirens*, and from believing the Rose he saw at Kew to be the true Ayrshire ; but I have ascertained that the Ayrshire Rose was not in the Royal Gardens at the time when Mr. Lindley there enquired for it, the one supposed to be it, being actually *Rosa sempervirens*.

A more difficult task remains to be performed, that of ascertaining what this shrub is. That it cannot be identified with the type of any described species is clear ; it is equally certain that it has not yet been found growing naturally wild any where, so as to enable us to treat it as a species, or as one of those varieties of ascertained species which, from their not being traceable to a single original, but being abundant in the districts where they are found, I consider as a higher class of variation, or as sub-species of a well defined type. If, as is mentioned above, several plants of it were raised together, we have still to look for its parent, which would probably agree with it, if several of its seeds produced similar plants ; but it does not seem certain that more than one plant was first produced, and it may consequently be considered as an accidental variety, referable either to *R. arvensis*, or *R. sempervirens*.

The *Rosa arvensis* is a very rare plant in Scotland, and does not, as I am informed, grow wild in Ayrshire, therefore no seed of that species could have come by chance from a native plant, to give it being ; nor is it very likely that *Rosa sempervirens*, which, even in the south of England, is a tender plant, would have freely ripened its seeds in the climate of Scotland, so as to have casually produced the young plant there. I therefore consider it more probable that the new Rose did actually originate in the garden at Loudon Castle, from some seed transmitted to, or collected for, the Earl of Loudon ; and I think that the seed must have been that of *Rosa sempervirens*, which if it was really imported from America, must have been the produce of a garden plant, since the species is exotic in that country.

The Ayrshire Rose certainly has more affinity to *R. sempervirens* than to *R. arvensis*, the inflorescence especially accords exactly, the chief differences being that the leaves of the Ayrshire Rose are deciduous, and that it flowers a little earlier in the season. Under *Rosa*

sempervirens I therefore propose to place it, considering it to be a deciduous and free growing variety of that species; in order to preserve Mr. Don's name, it may be called *Rosa sempervirens capreolata*.

If a comparison be made of the Ayrshire Rose with *Rosa arvensis*, in the state we usually find it, the differences between them are so numerous that there cannot be a doubt about the propriety of separating them. But there are varieties of *Rosa arvensis* in which some of these differences are often less apparent, or altogether assimilated. For an acquaintance with these varieties I am indebted to Mr. William Borrer, with whom I have had an opportunity of personally examining them in their native habitats in Sussex. *Rosa arvensis* in accidental varieties has sported very much, and has produced some particularly ornamental plants; but those I am now about to mention are not single productions, they are found growing wild in various places unconnected with each other. Of these the first variety has the fruit slightly covered with setæ, but does not differ in any other character from the common *Rosa arvensis*. In the second, the leaves are elongated, and sharply pointed, and the fruit is also elongated. The third accords with the second, except that the fruit of it is slightly hispid. The fourth has many peculiarities, it is far less robust than the common sort, having weak shoots, which are consequently very pendant, and the joints do not grow straight but in a zig-zag manner; the foliola are smaller, less rugose, flatter, rather bending back, and shining on the upper surface; below they have the glaucousness of the type, though less of it, and somewhat shining; the flowers grow mostly singly, sometimes in cymes, but very seldom in great numbers. The first and third of these varieties agree with the Ayrshire Rose in the hispid fruit; the second and third in their lengthened leaves and elongated fruits; but they have no other peculiar points of accordance. When I first heard of the fourth variety, I expected we had got the Ayrshire Rose in a wild state; its weak and pendant branches, and the shining quality of the foliola encouraged the opinion, but the flexuose habit of its shoots, their shortness of extent, and the difference in the leaves, though approximating, overthrew my hope.

In the cultivation and management of the Ayrshire Rose there is little difficulty; layers of its shoots root easily, and it strikes readily from cuttings. When placed in good soil it grows so rapidly, that by the second summer, the planter, if he wishes to cover a considerable space with its branches, will be gratified by the attainment of his object."—*Horticultural Transactions*.

PART II.

E X T R A C T.

ON THE CULTIVATION OF PINKS.

A BRIEF account of the cultivation of Pinks pursued by me I now subjoin, hoping, though the subject be trifling and unimportant in itself, it will afford some gratification to those persons who are fond of flowers.

I formed my Pink beds and planted them about the middle of October; they were raised six inches above the alleys, to enable the heavy rains to pass off during the winter. The soil consisted of a sandy loam, or more correctly speaking, of a commixture of yellowish loam, common black garden mould, road grit taken from the entrance to Paddington pond, washed before it was used, and a good portion of rotten horse-dung, well incorporated, with a good bottom of dung from the cucumber pits: added to which, I top-dressed the beds in the beginning of May, after weeding and lightly hoeing the surface, with nearly an inch thick of rotten dung passed through a coarse sieve, in which was a small quantity one-year old sheep-dung, the sweepings of the St. John's Wood lane sheep-pens.

I watered them freely with the pipe of the water-pot between the rows, when the pods were swelling and showing bloom; for if the plants lack moisture at this stage of their growth, when the weather is generally hot and the ground dry, the flowers seem to languish, and never attain that degree of perfection they would do if the beds were kept moist and cool. The top-dressing prevents the ground from cracking, and the rains and water given from the pot passing through it, convey gradually a wholesome nourishment to the plants.

The effect of careful, over careless cultivation was never perhaps more clearly evinced than in an instance in my own neighbourhood this season. A friend of mine, who had received from him all the superior varieties of Pinks, planted them in a bed in the common way; and though they were pretty healthy, and sent forth sufficient blooms, they presented only a sort of uniform sameness, undistinguished by that pleasing variety of bright colouring, and beautiful lacing peculiar to each, which were so manifest in mine: a common observer would have said that they were Pinks altogether different from mine.

Florists contending for a prize, and anxious to get their flowers large, leave three pods only upon each stem, and four or five stems to a large plant, two or three to a small one, cutting off the rest as they spinde up to flower: as soon as the pods are full formed, they tie a slip of wet bass round them, to prevent their bursting irregularly, and place a glass or other covering over them when in bloom, to protect them from the sun and rain, thereby preserving their colours from being soon faded and tarnished.

If there has been much frost during the winter, and the earth is consequently rendered light and loose when it thaws, the roots, by such extension of the ground, will sometimes be raised almost out of it: in that case it will be necessary, any time about the beginning of April, to tread the mould down lightly with the foot, or at least to compress it firmly round the plants with the hand.

A Pink bed will continue, and flower very well, for two years in succession, though most florists renew their plants every year by piping the grass, in order to have them young, healthy, and vigorous, and if they are confined to the same plot of ground, they take care to add a little fresh loam and rotten dung to it, every time they make up a fresh bed.

Columella and Pliny, in their works on Agriculture, have given directions for the selection of good soil, which cannot be amended at the present day: the following are some of the tests whereby they distinguish it. "That it is of a blackish colour: glutinous when wet, and easily crumbled when dry; has an agreeable smell; imbibes water, retains a proper quantity, and discharges a superfluity;" &c. Gardeners who cannot meet with such soil ought to use artificial means to form it, by bringing together different kinds: sand and stiff loam being the principal ingredients required, the one for strong soils, the other for light

Before I use fresh dug loam, I always take the precaution to strew over it a little quick lime well slacked, and in a hot state, to correct any acidity, or decompose any injurious saline compounds. Lime also is an excellent application for the destruction of slugs, snails, worms, and other injurious insects, as well as for the dissolution of inert vegetable matter.

You will excuse the minute detail, which I have entered into more fully than I intended when I sat down; but as I took the pains to make the experiment, I give it you, because I have every reason to be satisfied with the success of it.

Before I conclude, I beg to call to your recollection that I am neither gardener nor florist professionally, but that I commenced the cultivation of flowers in the first instance, with a view to amuse a depressed state of mind, and reinvigorate a still more sickly state of body. I therefore solicit your utmost indulgence towards the remarks which I have made on the cultivation of that pleasing little flower, the Pink.—*Horticultural Transactions.*

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *ALLIUM SICULUM*, Sicilian Garlick. (Brit. Flow. Gard., 349.) Natural Order, Asphodelaceæ; Linnean Class, Hexandria; Order, Monogynia. This remarkable species of Garlick is grown in the Chelsea Botanic Garden; it grows very extensively in Madonia, inhabiting the shady valleys; it is also found in other parts of the kingdom of Sicily. The flower stalk rises to the height of four feet, crowned by an umbel of near thirty blossoms, which, when expanded, are pendulous; they are of a greenish yellow colour, marked with rosy-purple and white. The whole plant has a very disagreeable scent, being far more powerful than that of any other species. *Allium*, from the Celtic word *all*, acrid; alluding to the properties of the plant.

2. *ANTIRRHINUM GLANDULOSUM*, Glandular Snapdragon. (Bot. Reg. 1893.) Scrophulariaceæ; Didynamia Angiospermia. A very pretty flowering *hardy annual*, introduced into this country from California by the late Mr. Douglas. The flower stem rises about two feet high, branching, and each branch terminating with a raceme of flowers of some length. The blossoms are of a fine rose colour outside, and pale yellow within. The plant blooms from July to the end of the season. Seeds are produced in abundance. It merits a place in every flower garden. *Antirrhinum*, derived from *Snoutwort*, the appearance of the corolla resembling the snout of some animal.

3. *ARDISIA ODONTAPHYLLA*, Tooth-leaved Ardisia. (Bot. Reg.) Like all the other *Ardisias*, this species is a handsome evergreen hothouse shrub. It is a native of Bengal, where it was discovered by Dr. Buchanan. The flowers are of a pale salmon colour streaked with rose; they are highly fragrant. *Ardisia*, from *ardis*, the point of a weapon, referring to the sharp pointed segments of the corolla.

4. *BEGONIA SANGUINEA*, Blood-red Begonia. This very striking species is a native of Brazil, from whence it has been introduced into this country in 1832. It has bloomed in the Edinburgh Botanic Garden. It requires a hothouse temperature. The stems are of a fine red colour, and the leaves at the upper side of a green, perfectly smooth, and at the underside of a very deep blood-red, producing a striking appearance. The flowers are white. The plant deserves a place in every collection of hothouse plants.

5. *BERBERIS EMPETRIFOLIA*, Crowberry-leaved Barberry. (Brit. Flow. Gard.) Berberidaceæ; Hexandria Monogynia. Mr. Lowe, of Clapton Nursery, recently introduced this plant into this country; Mr. Lowes collector, Mr. Anderson, discovered it in the straits of Magellan. It is a very delicate and pretty plant, forming a procumbent shrub with slender twiggy branches. The flowers are large, of a rich orange yellow colour. This plant is offered for sale in the London Nurseries.

6. *BLETTIA PATULA*, Spreading flowered. (Bot. Mag.) Orchideæ; Gynandria Monandria. This very neat and pretty flowering species, is a native of Hayti, and was introduced into this country in 1830. It has flowered in the stove in the

Edinburgh Botanic Garden. The flowers are produced upon an elongated raceme, each raceme having upwards of twenty flowers upon it; the blossom is nearly three inches across, of a beautiful reddish lilac colour; the base and edges of the labellum are white. It is a very desirable species, and merits a situation in every collection of stove plants.

7. *CIRRHÆA TRISTIS*, Sad-coloured. (Bot. Reg. 1889.) Orchidaceæ; Gynandria. Another very pretty Orchideous plant, a native of Mexico; it has bloomed in the collection of Messrs. Loddiges. The flowers are produced upon a pendulous raceme of several inches long; the flowers are of a dark purple, suffused with blood colour and greenish yellow; the labellum is of a dark purple; they are very fragrant; each flower is rather more than an inch across; the petals are very narrow.

8. *COTONEASTER LAXIFLORA*, Loose clustered flowered. (Bot. Mag. 3519.) Rosaceæ; Icosandria Digynia. This species forms an upright shrub from five to six feet high. It has been recently introduced into this country by the London Horticultural Society. The plant makes a pretty addition to our hardy shrubs; it has much the appearance, in foliage, of a *Vaccinium* rather than a *Cotoneaster*. The flowers are small, of a rosy colour, produced in pendulous cymes.

9. *CALLEOPSIS TINCTORIA*, var. *ATROPURPUREA*, Dyeing Calceopals, Dark flowered variety. This variety of the well known and much admired *Corceopals tinctoria*, now called *Calliopsis tinctoria*, is very superior to that species; it was raised from seed saved by Mr. James Taft, of Merry Flats, near Glasgow. The flowers are about the size of *C. tinctoria*; the centre is yellow, surrounded by a circle of dark purple, beyond which, to the extremity of the petals, is of a fine red scarlet colour; some of the flowers are destitute of the yellow centre. It is a splendid flowering annual, and deserves a place in every flower garden; we have grown it this season in masses, and it produces a fine show. Seeds of the kind will be plentiful in the hands of the London seedsmen next spring.

10. *CRATÆGUS SPATHULATA*, Spathula leaved Hawthorn. (Bot. Reg., 1890.) Rosaceæ; Icosandria Pentagynia. This species forms a pretty bush, growing about five feet high. The *C. virginica* of the nurseries is the true *C. spathulata*; it very much resembles the *C. parvifolia*, but it differs from that species by the leaves being edged with strong dark glands, and having large leafy stipules. The flowers are white, produced in clusters of two or three in each, succeeded by green fruit of moderate size. It is a native of the dry woods in Virginia and Carolina. *Cratægus*, from *Kratos*, strength; referring to the durability of the wood.

11. *CRYPTOPIDIUM PUNCTATUM*, Spotted flowered. Orchididææ; Gynandria Monandria. A very splendid flowering species, introduced from Brazil by William Swainson, Esq., some years since. It bloomed for the first time in the Glasgow Botanic Garden in 1835. The petals are yellow; sepals mostly spotted with purple and red; the lip has a purplish red edge; the remaining parts of the flower are yellow, altogether producing a splendid and striking contrast.

12. *CROCUS STAVEOLENS*, Fragrant (flowered) Crocus. (Brit. Flow. Gard. 352.) A very pretty pale blue flowered species, a native of Italy; it is also found growing plentifully about Rome. It is cultivated in the garden of the Honourable W. T. H. F. Strangways, Abbotsbury Castle, Dorsetshire. The pretty and fragrant flowers recommend it to every garden.

13. *GILIA TENUIFLORA*, Slender flowered. (Bot. Reg. 1888.) Polemoniaceæ; Pentandria Monogynia. The late Mr. Douglas sent seeds of this new hardy annual from California, to the London Horticultural Society; Mr. Douglas had appended the name *Gilia splendens* to the packet, but it certainly does not merit such an appellation, being very much inferior to *G. tricolor*. The flowers of the present species are produced upon slender, branching stems, which rise to about two feet high; each flower is about a quarter of an inch across, of a pale rose colour, slightly streaked with red outside, and of a fine violet in the inside. The flowers do not produce much show where a single plant is only grown; but if grown in masses, it makes a pretty addition to the flower garden.

14. *LUPINUS LATIFOLIUS*, Broad-leaved Lupine. (Bot. Reg. 1891.) This species was found in California by the late Mr. Douglas; it is a hardy perennial. The flowers are like *L. littoralis*, of a purplish violet colour. *Lupinus*, from *Lupus*, a wolf; referring to the exhausting properties of the roots of the plant with the soil.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A LIGHT OF PLANTS FOR A CONSERVATORY, &c.—Having a small Conservatory on the outside of my window, warmed only by the heat of the room, and not by any regular flue, I should be obliged if some correspondent would give me the names of such a collection of plants as would look gay and be fragrant, during the autumn, winter, and spring. I do not want them in the summer. I should not have troubled you with the query, did I not think that many plants which would thrive in a regular Conservatory, would not thrive in such a place as I have described, which is merely heated by the hot air from the room.

July 12th, 1836.

A SUBSCRIBER AND CONSTANT READER.

ON THE ANOMATHECA CRUENTA, &c.—A Subscriber is very desirous of learning, through the medium of your *Cabinet*, the best method of raising the *Anomatheca cruenta*. I have saved, this summer, a great quantity of seed. Will any of your Correspondents inform me *when* it is to be sown,—if to be raised in a hothed or open pans in the greenhouse,—whether seedlings of the same year will blossom,—and what is the proper soil for raising the seed in? This information will much oblige

August 25th, 1836.

A SUBSCRIBER.

ON THE WIRE-WORM.—A long time ago, I sent a query to you on the subject of the Wire-Worm.—I wanted to know the best mode of getting rid of the pest. In answer to my query there appeared an extract from a floral publication, recommending the careful sifting and examination of the mould,—this process would be very difficult to perform to a great extent. In a garden near my residence, which contains fourteen acres, the proprietor lost in one season, a very extensive collection of Dahlias, entirely from the wire worm. If any correspondent of the *Cabinet* knows of a method which would be effectual in a case like the above, and could be easily done, I should be greatly obliged by the information.

A SUBSCRIBER AND CONSTANT READER.

ANSWERS.

ON MIXING HERBACEOUS PLANTS WITH SHRUBS.—In answer to your Correspondent "Juvencus," on the bad taste of mixing herbaceous plants with shrubs, he will find an article in Vol. II, No. 65, page 412, of the *Gardener's Magazine*, by the Conductor. In the first place, the author has stated in a former part of the work, that "one of the most common errors in ornamental gardening, is that of mixing herbaceous plants with shrubs and trees." The reason is very simple, viz. that neither can thrive properly, and that supposing both to thrive in the same degree, the one injures the effect of the other. However pleasing and picturesque it may be to see trees, shrubs, and flowers, all struggling together for the mastery in a natural wood; yet this sort of beauty is totally unsuitable for scenes of art. The object of collecting trees, shrubs, and flowers into a garden, is to produce them in a higher degree of perfection, and show them off to greater advantage, than can be done in a state of wild nature. Now, whatever, in the planting, cultivation, or management of a garden, interferes with these two objects, the perfection of the plant, and its display to the greatest advantage, must be wrong, unless we are wrong in our views of what is the object of garden culture. If the object in a garden is to imitate nature by mixing trees, flowers, and shrubs together indiscriminately, and crowding them together as they are to be seen in a state of nature, then, of course, our argument falls to the ground, and the present general practice of fringing the margin of shrubberies and plantations with herbaceous plants, admits of justification. On the other hand, if we are right in the objects proposed to be attained by a garden, then flowers ought never to be planted where there is

some obvious impediment to their arriving at a high degree of perfection, or where there is some other rival object of beauty to interfere with their effect. I will continue the subject at some future time.

W. HURST.

(We shall be glad of any observations on the subject from Mr. Hurst.—COND.)

ON DESTROYING MOSS, &c.—As I have not seen any answer to the question put by Maria in the June Number of the *Cabinet*, page 137, in which she asks for information how to get rid of moss in a long gravel walk. I conjecture that the walk is possessed of one if not both the following evils, namely, that the walk lays wet, and that the gravel is of a very close or clayey nature. To remedy these evils, I would advise Maria to have the walk well drained, and some sharp sand mixed with the gravel; the draining may be done in the following manner:—take the gravel off, about a foot inside, along the centre of the walk, and lay it on one side, and take out the sub-soil the same width and depth; then make the bottom of the drain firm, and lay in a good hollow drain with bricks or stones, and fill up the remainder with small stones to within an inch of the top, and lay the gravel on again. If the walk is more than six feet wide, then there should be two drains, that is, one towards each side. There is another way in which walks may be laid dry, but it is attended with more trouble and expense than the former; but where materials can be had without much expense, I would recommend it. It is as follows:—In renovating an old walk, begin at one end and take off the gravel for about six or eight feet, and carry it to the other end, then take out the sub-soil about six inches deep at the sides, and keep bearing a little deeper till you come to the centre; this being done, lay in a drain as directed above:—the whole must then be filled up to its proper height with stones or other hard material, laying the smallest at the top. Then take the gravel off another length, and put it on what has been drained; next take out the sub-soil and drain as before, and so go through the whole walk. If the gravel is of a close or clayey nature, it must not be laid on more than an inch thick, some sharp sand may be mixed with it as it is laid on. In making a new walk, it is best to drain the whole length at once. In making or draining a walk, if the walk does not fall either way, the drain must be constructed to convey the water off.

W. DENYER.

ON CORONILLA GLAUCA.—In the July Number of the *Cabinet*, page 163, Maria wishes for information on the *Coronilla glauca*. I advise her to pinch off the tops of the leading shoots. Young plants are sometimes shy of blooming, particularly if they are growing luxuriantly. The lateral shoots thus caused will be flowering ones.

W. DENYER.

REMARKS.

ON A LIST OF THE BEST HYACINTHS FOR FORCING.—Many of your readers would, we think, cultivate Hyacinths with much greater pleasure, could they ascertain which were most worthy of their attention. But the London Catalogues containing some hundreds of varieties, with no other distinction than Double and Single of Red, Blue, White, and Yellow, and many of the most expensive, being so inferior to some of the lower priced varieties as to render the prices no criterion of quality, they are discouraged in their attempts to select the best. Having for many years paid particular attention to Hyacinths, growing annually in pots and glasses several hundreds of the finest varieties cultivated in Holland, we send for insertion in your *Cabinet*, (should you deem it worthy of a place) a select list of a few of those, which we consider the finest, for blooming in pots and glasses, (all of which are at very moderate prices) hoping by means of your extensive circulation, to obviate the above evil.

J. SUTTON & SONS.

Reading, Berkshire, July 1836.

(We refer our Readers to Messrs. Sutton's Advertisement, in this month's *Cabinet*.

CONDUCTOR.

ON THE GROWTH OF PLANTS, &c.—When plants advance but little in their growth, and assume a very dark or blue green colour, it shows a want of water, or an obstruction to the action of the capillary attraction; and when a plant is of a light green colour, and is diminutive and puny in its growth, and there is evidently

no want of water, it shows a want of carbonaceous matter, or a general deficiency of nutriment. If plants and trees grow very luxuriantly in branches, forming large leaves, and producing little fruit, it shows that there is a luxuriant supply of hydro-carbonate, or an excess of carbonaceous matter, lying at a great depth from the surface, and a want of oxygen; when the leaves and branches are deformed and distorted by blisters and blotches, and by irregular contractions and contortions of the stalks, fibres, veins, or ribs of the leaves, or when tumours break out on the leaves and shoots, it shows that an excess of putrescent carbonaceous matter containing nitrogen surrounds the roots.

HAYWARD ON HORTICULTURE.

THE QUALIFICATIONS REQUISITE FOR A COMPLETE GARDENER IN THE YEAR 1720.—A great many gentlemen who are lovers of gardening, have often the misfortune to meet with such gardeners, who being wholly ignorant of the foundation of the art, and having only a confused knowledge of the manner of dressing and improving a garden, do often destroy or injure it. Those authors who have treated of the qualifications necessary to a complete gardener, have enumerated those that follow:—1. That there being a great deal of difficulty in the art, the gardener ought to be such an one as has a natural bent of genius to the study. 2. That such a person ought to be instructed in the latin tongue, writing, arithmetic, the mathematics and designing, that he may be able to read authors treating of the art, understand proportions, draw plans, designs of gardens, compartments, parterres, &c. 3. He should be acquainted with the terms and rules of botany, so as to be able to distinguish every sort by its proper name, and to class and assort plants to their respective tribes or families. 4. He ought to be well grounded in the philosophical principles of his art, and to be a good naturalist, that he may reason pertinently of the difference and goodness of soils, &c. 5. He ought to observe the different degrees of heat necessary to promote the growth of plants that come from different climates; to study the nature and temperature of all plants, to know which of them require a hot, dry, or fat soil. 6. He ought to know thoroughly how to order a flower garden, a kitchen garden, and an orchard; and what he ought to plant in the one, and what in the other. 7. He ought to make a collection of the several sorts of fruit, and keep memorandums of their respective characteristics, and take particular notice of the different times of their ripening. 8. He ought to converse with those persons who are ingenious in husbandry and gardening, and to observe their different ways of practice. 9. When a man has arrived at the forementioned qualifications, it will be much for his improvement to travel to Holland and Flanders, which will furnish him with general ideas, which may very much contribute to his improvement. In Holland he may see that the study of gardening is not unworthy the wisest or greatest men in the country; and if he be well accomplished in the art, will be treated by them with extraordinary respect. In Flanders, though their gardens differ from those in Holland, being more after the English mode, yet being the best passage to France, his mind will be better prepared to pass a judgment of the French gardens; the excellency of which consists chiefly in the management of fruit-trees, except Versailles, which Mr. Bradley says, is the sum of every thing that has been done in gardening; that Trianon and Marli are partly of the same taste, and a sight of them will furnish a man with fine ideas. Dr. Agricola says, it is impossible that any description should clearly represent to us all that is remarkable in fine and noble gardens; that when he reflects on Versailles only, and what he has seen there, he cannot but think that he had a foretaste of paradise, all his senses being struck with astonishment; and though he has the whole represented in fine prints, yet it was only a shadow of what was so naturally figured there: and therefore he thinks it absolutely necessary, that gardeners should travel into foreign countries.

THE ORIGINAL CHARTER OF THE GARDENER'S COMPANY.—This charter was granted to the gardeners in the third year of the reign of King James the First, when the buildings in and near the city of London, were not half so many as now they are; and there were many spaces vacant of buildings between the houses in London and Westminster, which are now built upon. Mr. Stow says, that in former times there was not a continued street of buildings between the cities of London and Westminster, as now there is, but much vacant space of fields and open grounds between, and so as not being paved the way was often bad to pass, and was not paved any farther than from Temple-Bar to the Savoy, till the reign of

Queen Elizabeth, that Sir Robert Cecil building a very fair house beyond the Savoy at Ivy-Bridge, leveled and paved the highway near adjoining. Within the compass of one age, Somerset House and the buildings were called country houses, and the open places which were about them were employed in gardens for profit; and also many parts within the city and liberties were occupied by working gardeners, and were sufficient to furnish the town with garden ware; for then but a few herbs were used at the table in comparison to what are spent now. The encouragement that these gardeners met with at this time, gave occasion to many others to set up and profess the same calling near London, who by their unskilful management committed several abuses: therefore it was proposed that the London gardeners, who were professed men, should become a body, and inspect the work of others who were pretenders to the art. But notwithstanding this charter granted in the third year of King James, the city increasing in buildings, the company's privileges were invaded by many that called themselves gardeners, so that they were obliged to solicit an additional power. The most material parts of the charter are as follows:—"James, by the Grace of God, King of England, Scotland, France, and Ireland, Defender of the Faith, &c. Whereas divers and sundry persons inhabiting within the city of London, and six miles compass thereof, have continually taken upon them to use and practice the trade, craft, or mystery of Gardening, Planting, Grafting, Setting, Sowing, Cutting, Arbouring, Raking, Mounting, Covering, Fencing, and removing of Plants, Herbs, Seeds, Fruits, Trees, Stocks, and Sets, and of contriving the conveyances to the same belonging, being ignorant and unskilful, having not been brought up in the said trade or mystery; and whereas the said persons have also daily sold and set unto our loving subjects, into sundry the parts of our dominions and countries, dead and corrupt plants, seeds, stocks, and trees, to the great deceit and loss of our said subjects: for redress and prevention of which deceits and wrongs, we did by our letters patents, in the third year of our reign over this our kingdom, grant to the gardeners then inhabiting in London, and within six miles of the said city, that they should be one body corporate, by the name of Master, Wardens, Assistants, and Commonalty of the Company of Gardeners of London, and did thereby give unto them divers powers and privileges, as by our said letters patents appeareth; and whereas we are credibly informed, that there are certain defects, questions, and doubts, found and arisen in and upon our said letters patents, whereby the public good and profit of the said company is much hindered, and the abuses aforesaid still continued; which Company of Gardeners have hereupon made their humble petition unto us, that we would be graciously pleased to renew the said letters patents, with amendments of these defects, and with such other necessary additions and alterations, as we think most fit and convenient. Know ye, &c., that from henceforth all person or persons, as now are freemen of the said Company of Gardeners, and all other person or persons to be admitted into the said company according to the provisions in these presents expressed, and which are, or shall be inhabiting in London, or within six miles of the said city only, and none other shall be one body corporate and politic in deed and in nature, by the name of Master, Warden, and Assistants, and Commonalty of the Company of Gardeners of London, &c., and that by the said name they shall have perpetual succession, &c." The charter proceeds in a formal set of words, and gives a full power and authority to them to have a public seal to be altered at their pleasure, and to purchase lands, &c. "And to nominate, elect and chuse, and swear, every year, the Wednesday in Whitsun-week, one Master, two Wardens, and four and twenty Assistants, to be chosen out of the said Company of Gardeners, who shall order, rule, and govern the said corporation. And that it shall, and may be lawful to and for the Master, Wardens, and Assistants for the time being, or the greater part of them, to admit into the said company such person or persons, as they in their discretion shall think meet; and they have also a power to take and keep as their apprentice or apprentices, all and every such person or persons, as will bind themselves apprentice or apprentices for the term of seven years and upwards. And further we will, and by these presents for us, our heirs and successors, do straitly prohibit and forbid, that no person or persons whatsoever, inhabiting within the said city of London, or the liberties thereof, or within six miles compass of the said city, do at any time hereafter use, or exercise the art or mystery of gardening within the said city of London, or the liberties thereof, or without the same within six miles compass of the same city,

either in places privileged or not privileged whatsoever, without the licence and consent of the said Master, Wardens, and Assistants of the said Company for the time being, or the more part of them, thereunto first had or obtained, other than such of our subjects as shall garden for their own household or private spending; and that no person or persons being not admitted of the said company, and dwelling above the space of six miles from the said city of London, shall henceforth sell or put to sale, or offer to put to sale any Plants, Herbs, Roots, or Seeds, Trees, Stocks, Slips, Sets, Flowers, or other things usually sold by gardeners, within the city of London, or within six miles of the said city, but only in and at such accustomed times and places, as the foreign baker and other foreigners, being not free of our said city, use to do with their bread or other victuals; and then also shall depart the said places or markets with their said goods by them to be brought for sale, &c., upon pain of forfeiture of such Plants, Herbs, Roots, Seeds, Trees, Slips, Sets, Flowers, &c., all which forfeitures shall be distributed amongst the poor of the place, where such forfeitures shall be taken." The charter also sets forth the power of the company to make laws, constitutions, &c., for the good government of the master, wardens, &c. And also the power given to the master and wardens, or to any two of them assisted by two of the assistants, to search and view all manner of plants, stocks, sets, seeds, flowers, &c., in any market within their limits, to see, if they are found good and wholesome, and if they find any such wares deceitful, unwholesome, dry, rotten, &c., to make seizure of them, or to burn or consume them with the assistance of the clerk of the market, or to make seizures upon any forfeitures mentioned in the charter. And the charter further commands, that the Lord Mayor of the city of London within his liberty, and the justices of the peace within the limits specified in the charter, shall upon such offences committed against the company, commit such offenders to the next gaol, till they have satisfied the demands of the company. The place of meeting for the company of gardeners, is in the Irish chamber of the Guild-Hall of the city of London.

REFERENCE TO PLATE.

A. *Sphenogyne speciosa*.—This is a most beautiful flowering annual, growing about a foot high. We received seeds of it from the Cape of Good Hope, in the spring of the present year. The plant is of handsome foliage, and a most profuse bloomer. The flowers open fully when the sun shines upon them, and then display a show of the most pleasing kind. We have had it in bloom since the 1st of June, and it appears likely to continue to the end of the season. A bed of it would be a delightful contrast to one of an opposite colour.

B. We feel sorry it is not in our power to give a larger specimen of this very splendid flowering shrubby Calceolaria. It has recently been raised by Messrs. Hammond and Stephens, Nurserymen, Taunton, Somersetshire. Our readers will, however, perceive that of its class of colour in the shrubby kinds, it stands unrivalled, and merits a place in every collection.

C. *Forsyth's Beauty of Anlaby Pansy*.—This very handsome kind was raised by Mr. Forsyth, Florist, Anlaby, near Hull. The flower is of first rate excellence, both in form and colours.

D. *Nolana atriplicifolia*.—A new and very handsome flowering annual, of prostrate growth, or if grown in masses will rise to half a foot high. The flowers are produced most numerously, and give a very pretty appearance. The plant occupies a place in every flower-garden. It is a desirable plant to grow in order to hang pendulous over the edge of a vase, pot, &c. contrasting with *Verbena melindora*, *Anagallis fraticosa*, &c. Seeds may be obtained of the principal Seedsmen next spring.



<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Fragrans		
Grandiflora		
Grevillii minor	bright rose shaded	compact and double.
Grevillii Scarlet, or Russelliana	dark crimson	compact and very double.
Grevillii, or Seven Sisters	purple, red, and blush	expanded and double.
Hybrida, or Laure Davoust	changeable blush	imbricated and very double.
Rubra	rose	compact, small and double.
Superba	bright rose, pencilled	cupped and double.

Division III.—EVERGREEN ROSES (*ROSA SEMPERVIRENS*).

Adelaide d'Orleans	pale rose, shaded	imbricated and double.
Banksiiflora	white	compact, small and double.
Brunonii	bright purplish red	cupped and double.
Carnea grandiflora	pale flesh	cupped, large and double.
Donna Maria	pure white	cupped and very double.
Eximia		
Félicité perpétuelle	creamy white	compact and very double.
Leopoldine d'Orleans	pale flesh	cupped and double.
Madame d'Arblay	pale flesh	cupped and very double.
Majur	white	large and single.
Melanie de Montjoie	white	expanded, large and double.
Myrianthes	delicate rose	cupped and very double.
Plena	white	compact and double.
Princesse Louise	creamy white & rose	cupped and very double.
Rampant	white	cupped and double.
Rose fourée	rose	cupped, large and double.
Rosea	pale rose	compact and double.
Scandens	pale flesh	expanded, semi-double.
Spectabile	Ilac rose	cupped and double.
Triomphe de Bollwyller	creamy shaded white	cupped, very large & double.

Division IV.—BOURSAULT ROSES (*ROSA ALPINA*.)

Archuse	rose	globular and very double.
Blush, or Florida	pale flesh	globular, very large & double.
Crimson, or Anadis	bright purp. crimson	reflexed, large and double.
Drummond's Thornless	vivid rose	cupped, small and double.
Elegans	purple, white stripes	expanded and double.
Gracilis	bright purplish rose	cupped and very double.
Inermis	vivid rose	cupped and very double.
Red	bright rose	cupped and semi-double.

Division V.—BANKSIAN ROSES (*ROSA BANKSIÆ*.)

Rosa levigata	white	single.
Rosa sinica	white	single.
White Banksia	white	compact, very dble. & frequent
Yellow Banksia	creamy yellow	compact and very double.

Division VI.—HYBRID CLIMBING ROSES.

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Astrolabe	bright rose	compact and very double.
Bengale Formidable	rose	cupped, small & very double.
Cassorettiana	pale flesh	cupped and semi-double.
Clair	bright crimson purple	cupped and single.
Indica major	pale blush	expanded, large and double.
Miller's Climber	bright pink	expanded and double.
New York China.	bright red	cupped and double.
Watt's Climbing Provence	rose	globular, large and double.

Roses for the Autumnal Rose Garden, that bloom from June till November.

PERPETUAL ROSES.

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Antinous	very dark crimson	cupped, finely shaped & dble.
Blanche Lamoureux	purplish shaded rose	cupped and very double.
Billiard	rose	expanded and double.
Belle d'Automne	pale flesh	expanded and double.
Belle Italienne	deep rose	cupped, large and double.
Belle de Trianon	lilac rose	cupped and double.
Clair Duchatelet	purplish red	globular and double.
Crimson Perpetual, or Rose du Roi	light crimson	cupped and very double.
Constancy	pale flesh	cupped, very large & double.
Chabert	purplish rose	expanded and double.
Couronne des Pourpres	purplish rose	cupped and double.
Crispata	pale rose	cupped and double.
Cuvier	rosy red	cupped and double.
De Nully	bright carmine	globular and very double.
De Rennes	bright rose	cupped and very double.
Délice d'Hiver	bright rose	expanded, large and double.
Désespoir des Amateurs	lilac rose	compact, small & very double.
Flon	bright rose	compact and very double.
Ferox	purplish deep rose	globular, large & very double.
Four Seasons, Blush	rose	cupped, semi-double.
Four Seasons, White	white	expanded and double.
Four Seasons, Monstrous, or Bullée	pale rose	globular and large.
Four Seasons, Thornless	pale rose	expanded and double.
Georgina	bright rose	globular, very large & double.
Gloire des Perpétuelles	deep rose	compact, large & very double.
Grand Perpetual, or Fabert's	bright rose	globular, very large & double.
Grande et Belle	deep purplish rose	globular, very large & double.
Henriette Boulogne	pale blush	compact and large.
Jean Huchette	lilac rose	globular, large and double.
Jenny Audio	bright rose	globular, very large & double.
Josephine Antoinette	rose	cupped and very double.
La Mienne	deep rose	compact and very double.
Louis Philippe	dark purplish crimson	expanded and very large

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Lodoiska.	pale blush	globular, large and double.
Madame Feburier	rose	cupped, large and very double.
Ma D�lice, or Douce Mellie	pale rose	cupped and very double.
Mario Denise	pale with rosy centre	globular and large.
Noel	lilac rose	expanded, large and double.
Pomponne Four Seasons	pale flesh	compact, very small & double
Pulcherie	purplish red	globular and double.
Preval	pale rose	expanded and double.
Pastana, or Scarlet Four Seasons	bright crimson	cupped, semi-double.
Perp�tuelle d'Angers	very pale flesh	expanded and very large.
Palmire, or Blush Perpetual	pale rose	compact and very double.
Perpetua nova	lilac rose	cupped and very double.
Panach� de Girardon or Striped Perpetual	pale flesh, striped with red	cupped and double.
Palotte picot�e	pale flesh	compact and double.
Portlandica carnea	pale rose	cupped semi-double.
Portlandica grandiflora	deep rose	globular, very large & double.
Prud'homme	rose	cupped and very double.
Queen of Perpetuals	pale flesh	cupped and very double.
Royal Perpetual	bright rose	cupped, very large & double.
Saint Barth�lemi	purplish rose	cupped and semi-double.
Scotch Perpetual	blush	cupped and double.
Sisley's	rose	globular and very double.
Stanwell Perpetual	pale flesh	expanded and double.
Sixth of June	deep rose	compact and very double.
Triomphe de Vitry	bright rose	expanded and double.
Volumineuse	blush	globular, very large & double

BOUBON, OR L'ILE DE BOURBON, ROSES (*ROSA BOURBONIANA.*)

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Antoine		
Armosa		
Augustine Margat	delicate bright rose	cupped, large and double.
Aristide	rose	cupped and double.
Augustine Lelieur		cupped, large and double.
Cent Feuilles		
Charles Desprez	pale rose	globular and very double.
Chloe	pale flesh	cupped, large and double.
Common	bright rose	cupped, large and semi-double
Diaphane	crimson scarlet	cupped and very double.
Dubreuil	bright purplish rose	globular, large and double.
Dubourg	pale blush	cupped and very double.
Duc de Grammont	purplish rose	globular, small and double.
Earl Grey		
Faustine	very pale flesh	cupped and double.
General Hoche	bright rose	cupped and double.
Gloire de Rosanene	bright crimson	cupped, large and semi-double

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Gloire de Guerin	purplish crimson	globular and very double.
Henry the Fourth	pale rose	cupped and double.
Ida	carmine	cupped and very double.
Jeanne d'Albret	very bright rose	cupped, large and double.
La Tendresse	pale rose	cupped, large and double.
Lemeale	rosy lilac	globular and very double.
Latifolia	rose	cupped very large and double.
Le Brun	bright rose	globular and double.
Malvina	bright rose	globular and very double.
Madame Desprez	lilac rose	globular, large and double.
Marshal Villars	purplish deep rose	cupped and very double.
Millesie	pale rose	cupped and very double.
Nectarine		
Oleander-flowered	rose	expanded, and like <i>Nerium splendens</i> .
Philippart	peach shaded	cupped, large and double.
Pierre Foulard	purplish rose	globular and very double.
Psyche	light crimson	cupped, small and double.
Philemon	lilac rose	cupped and very double.
Rose d'Amour (Madame Neumann)	purplish rose	globular and double.
Roi de Perse	glossy pale flesh	cupped, very large & double.
Sir Robert Peel	pale rose	cupped, large and very double
Sylvain	purplish rose	globular and double.
T. Rivers	delicate rose	cupped, finely shaped & dble.
Valerie	rose	cupped and double.
Veleda	blush	globular, large and double.
Victoire Argentée	glossy pale blush	cupped and very double.
White, or Julie de Laynes	white	cupped, large and double.
Walner	vivid purplish rose	cupped and double.

CHINA ROSES (*ROSA INDICA*).

Alphonsine	purplish crimson	cupped and double.
Amiral de Rigny	vivid crimson	expanded, large and double.
Amiral du Perri	fiery crimson	cupped, large and double.
Animating	purplish red	cupped and small.
Alba elegans	white, shaded with blush	cupped, large and double.
Bardon	pale blush	cupped, large and double.
Beau Carmin	crimson, shaded	cupped and very double.
Belle Traverse	white	compact and double.
Belle de Florence	light carmine	cupped and very double.
Belle Illyrienne		
Belle Isidore	crimson and rose	expanded and double.
Camellia blanche	pure white	globular, large and double.
Camellia rouge	bright rose	imbricated, or camellia-like.
Camellia plena variegata		
Camellia semiplena variegata		
Candide	pure white	globular and very double.

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Cramoisie éblouissante	vivid crimson	reflexed and very double.
Cramoisie supérieure	crimson	expanded, large and double.
Cramoisie triomphante	crimson	cupped and very double.
Countess of Albemarle	pale rose, red centre	compact, large and double.
Clara	white with rosy centre	globular and very double.
Clarissa	pale blush	globular, large & very double.
Duchesse de Valière	lilac rose	cupped, very large and double.
Duc de Bordeaux	lilac	expanded and very double.
Duchess of Kent	shaded pale blush	cupped, large and double.
Duchesse de Berri, or Grand Val	dark crimson	compact and very double.
Dame Blanche	white	globular, large and double.
Darius	purplish deep rose	cupped and double.
Ensign Bisson	pale rosy lilac	expanded and small.
Ermite du Mont Cindre	dark crimson purple	cupped and double.
Fabvier	bright scarlet	cupped and semi-double.
Fenelon	purplish crimson	globular and double.
Fenelon du Luxembourg	deep lilac rose shaded	globular, large and double.
Flavia	crimson	globular, large and double.
Grandidier	bright rose, shaded	cupped and very double.
General Chassé	bright rose, shaded	cupped, large and double.
General Moreau	bright rose	cupped and double.
Glory		
Gloire d'Auteuil	clouded crimson	expanded and double.
Gouvion St. Cyr	carmino	cupped and double.
Grandiflora	deep rose	reflexed, very large & double.
Henry the Fifth	vivid scarlet	cupped and double.
Hortense	shaded bright rose	cupped and very double.
Indica minor	rose	compact and small.
Indica minor, crimson	crimson	compact and small,
Indica gloriosa or odoratissima	lilac rose	globular and very double.
Indica heterophylla	rose	cupped, with leafy calyx.
Imperiosa	dark crimson, shaded	cupped and double.
Joseph Deschiens		
Josephine	bright crimson	cupped and double.
L'Azure	lilac rose	expanded, large and double.
Leopold	pure white	globular and double.
Le Sombre	clouded dark crimson	cupped and double.
La Coquette	carmine	compact and double.
Le Volcan	bright red	cupped, large and double.
Le Vermillon	bright carmine	cupped and double.
Louis Philippe d'Angers	crimson	globular and very double.
Mulane Desprez	pure white	cupped, very large and double
Madame Bureau	pure white	globular and double.
Madame Desmouls	blush and rose	cupped and double.
Marjolin	purple crimson	globular, large and double.
Napoleon	shaded blush	cupped, very large and double
O'Connell	dark crimson	cupped and double.

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Petit Nini	rosy lilac	cupped, small and double.
Petite Triomphe	bright red	cupped, small and double.
Pluton	dark crimson	globular and double.
Pœonia-flora nova	pale lilac rose	globular, very large & double.
Perfection		
Princesse Marie		
Roi des Cramoisis	bright crimson	cupped and double.
Ronald's China	reddish purple	expanded and large.
Rœvesii	bright crimson	cupped and double.
Romaine Desprez	purplish shaded rose	cupped, large and very double
Rouge Superbe, or La Regu- lière	crimson	compact and double.
Reine de Postum	blush with buff centre	cupped, very large and double
Striata	rose, striped with red	cupped and double.
Strombio rubra	red	globular and very double.
Sulphurea superba	pale sulphur	cupped, very large and double
Triomphe de Gand	bright rose, shaded	cupped, very large and double
Theresia Stravius	pale flesh	cupped and double.
Triomphante, or Pœony Noi- sette	deep rose & crimson	reflexed, large and double.
Turenne	purple,	cupped and double.
Van Dael	lilac rose	globular, large and double.
Weber	bright rose	cupped with very stiff petals.
White	pure white	globular and double.
Willow-leaved.	bright rose	expanded and semi-double.

TEA SCENTED CHINA ROSES (*ROSA INDICA ODORATA*).

Aurore	straw changing to buff	expanded, very large & double
Aline	rosy blush	cupped, large and double.
Boutelaud	delicate rose	globular, large and double.
Belle Helene	pale flesh	cupped and very double.
Buffon	purplish rose	globular and very double.
Belle Felix	bright rosy lilac	expanded and very double.
Belle Clorinde	rose	cupped, large and double.
Belle Elvire	bright rose	globular and double
Bourbon	white	globular, large and double.
Blush	blush	globular and double.
Caroline		
Cedo Nulli	carmine	cupped and double.
Coccinea, or Colville's crimson	vivid crimson	expanded and double.
Cels	red	expanded and double.
Dremont	delicate rosy buff	cupped, large and double.
Fragrans	bright crimson	cupped and double.
General Valazé	shaded pale blush	globular, large and double.
Gracilis	bright red	cupped and small.
Grandifolia, or Thouillet	pale flesh	cupped, large and double.
Harly	vivid rose	expanded, large and double.

<i>Name.</i>	<i>Colour.</i>	<i>Form and Character.</i>
Hamon	blush, shaded, crims.	globular, very large & double.
Hyménée	white, yellow centre	cupped and double.
Iphigénie	lilac rose	globular, large and double.
Isidore	pale rose, shaded	expanded and double.
Julie Sisley	blush with rosy centre	globular, large and double.
Jaune Serin	straw colour and rose	cupped and double.
Lucile Delmart	bright rose	cupped and double.
Lejas	vivid light crimson	globular and very double.
Lyonnais	pale flesh	cupped, very large and double
Louis Philippe	delicate rose	cupped, large and double.
Lutescens mutabilis	pale straw	cupped and double.
Lutescens nana	reddish yellow	cupped, very small & double.
Maximilian	rose and buff	cupped, large and double.
Magnifica, or Magnus Ladulas	rose, marbled	cupped, large and double.
Mesfré	pale flesh	
Madame Guerin		
Mutabilis	rose, changing to crim.	cupped, large and double.
Nitida	white with rosy centre	globular, large and double.
Odoratissima	lilac rose	expanded, large and double.
Princesse Stephanie	pale flesh	globular, large and double.
Palavicini	yellowish white	cupped and double.
Potart	flesh with buff centre	expanded and double.
Pallida	bright rose, shaded	globular and double.
Rêve du Bonheur	rosy buff	cupped and very large.
Roi de Siam	pure white	globular, large and double.
Reino de Cythère	pale flesh	cupped, very large and double
Reine de Juillet, or Plantier	bright rose	globular, with stiff petals.
Strombio	cream and blush	globular and very large.
Superbe de Vitry	delicate rose	globular and very double.
Taqlioni	white with buff centre	globular and double.
Triomphe du Luxembourg	buff and rose	cupped, large and double.
Yellow	pale sulphur	cupped, large & semi-double.

ARTICLE II.

REMARKS ON THE MOUTAN PÆONY, OR TREE PÆONY.

BY J. S. L.

A VERY elaborate, but in many parts both fabulous and mistaken account of the Moutan Pæonies is given in the *Mémoires sur les Chi-nois*, the substance of which I will briefly note. They are stated to be of considerable antiquity in the gardens of the north of China, and are supposed to have been originally found wild on the mountains in the province of Ho-nan. They were at first cultivated in the district of Lo-yang, and subsequently in the Imperial Gardens of Kai-fong-fou, in Ho-nan; but they appear to have succeeded best

in the province of Hou-Kouang, from whence they are now supplied to the gardens of Pekin, and other parts of the Empire. They are stated to have received various names, as Hoa-ouang, or King of Flowers, Pé-leang-kin, or Hundred ounces of Gold (from their value), and Mou-chao-yao, or the Tree Pæony, to distinguish them from the Herbaceous Pæonies. It is represented that Moutans have been cultivated frequently of various heights, from very dwarf plants, to trees of twenty-four feet high, and that different varieties have existed, which produced their flowers at different seasons, some in winter, and some in autumn; but the spring flowering varieties are those now in cultivation. These are said to be very numerous, with flowers of various degrees of fullness, from semi-double to very double, and of the following colours, "rouge, violet, pourpre, amaranthe, jaune, blanc, noir, et bleu" in great variety. Some are represented to possess considerable fragrance. Accounts of the way of cultivating the Moutans in China are also given; they appear to be propagated from seed, and by other modes of increase which will be noticed hereafter. I do not place much reliance on the correctness of the details in this memoir, which extends to several pages; and I am incredulous, not only as to some of the colours of the flowers, which are said to exist, but also as to the extent in number of the varieties.

The provinces and places above mentioned, are in the northern and central parts of the Chinese Empire, and the habits of the Moutan evidently exhibit an high mountainous, or alpine origin, subject to being buried under snow during the winter. They make strong shoots early in spring, and break rapidly into foliage, and blossom.

In the description of China, published by Duhalde, in 1753, very little notice is taken of the Moutans; they are described under the general name of *Pivoines*, as being of different colours, and some of them fragrant. A brief notice of the Moutans in the gardens at Canton, will be found in Dr. Abel's account of Lord Amherst's Embassy to Pekin, in 1816; but it contains no information respecting them which is not herein stated. They are not mentioned, as far as I have discovered, in accounts of other travellers in China.

It must be concluded that the Moutans were transferred from China to Japan, where they are cultivated; but they do not appear, however, to have been introduced in much variety into the latter country. Kæmpfer, in the fifth fasciculus of his *Amœnitates Exoticæ*, printed in 1712, describes the plants of Japan, and (p. 862) among them the *Botan*, as a species; but does not mention any varieties. He distinguishes it by its woody stem from an Herbaceous Pæony called *Saku Jaku*, of which he names three varieties. Thunberg, in his

Flora Japonica, printed 1784 (page 230), confounds the *Saku Juku* and *Botan* together, referring both, most absurdly, to the *Pæonia officinalis* of LINNÆUS, and states that they are cultivated in every garden of Japan. The *Saku Jaku* of Kämpfer is, according to the printed opinions of those who have attended to *Pæonies*, referable to the species well known in our gardens as *P. albiflora*, though neither of the varieties mentioned by him have white flowers.

All the *Moutans* are sufficiently hardy to bear exposure in the open ground in the winter. The *Banksii* has been considered the hardiest; but neither that nor *Papaveracea* appear to suffer from frost, and they are, consequently, frequently planted in the borders of gardens; they will all grow in a northern aspect, and perhaps such a situation may be better suited to them, than one where they would receive more of the direct influence of the sun. But though they are not hurt by the severity of winter when planted out, the chilling blasts of our springs have very injurious effects on them, and both the leaves and flowers are often cut and injured when entirely unprotected at that season. From this cause, those who desire to have them in the greatest perfection, give them a covering of glass, under which the beauty of the blossoms and the delicacy of the foliage is perfectly preserved. They ought however to be planted in a border, in preference to being kept in pots. Warmth from fire or steam is not necessary to them; they are brought earlier into flower by heat, but not improved by it. The best mode of protecting them, and at the same time of having them in perfection, is that of glass frames, or houses without flues: these may be made of any dimensions that fancy may require.

The propagation of *Moutans*, upon their first introduction, was a matter of considerable difficulty; they have, consequently, borne a high price in the nurseries; and though they are now multiplied extensively, yet, with all the experience which has been acquired, the obtaining strong new plants of them is a tedious operation. All modes of propagation have been tried with them, viz. by seeds, suckers, grafts, cuttings and layers. They rarely produce perfect seeds, but would probably do so more frequently if the impregnation of the stigmas was properly attended to. The seedlings which have hitherto been obtained, as may be observed from the accounts of such in the former part of this paper, are but few. Suckers, or rather root-shoots, may sometimes be severed successfully from large old plants, and such soon become strong enough to flower. If the work is carefully executed, grafts of the rarer sorts may be fixed on pieces of the roots of the more common. These pieces of roots must be ea-

established in pots, and in the spring, a bud, with a little wood attached to it, may be joined to the root in the manner of a graft, a slice of the root being taken off to receive the piece intended to be united to it. When the fitting is completed it is to be covered with clay, taking care to leave the eye exposed; the pot must be kept covered with a hand-glass. Trials have been made of a plan of grafting the Moutan on roots of Herbaceous Pæonies, and I have heard that it has sometimes succeeded, but not sufficiently to encourage the practice generally. I have not witnessed the operation, but have been informed that it is performed by attaching a short slip of a branch of a Moutan, on which there is a bud, to the succulent tuber of an Herbaceous Pæony, binding them tightly together, sinking them below the surface of the earth, and covering them with a glass; the tuber supports the graft until it emits roots sufficient to maintain itself independently. Ripe cuttings taken off in August or September, with a small piece of the old wood at the end, and planted against the sides of garden pots, in a mixture of loam, leaf mould, and sand well drained, and protected from the air by glasses, will succeed. The pots must be kept secured from the frost in the winter, and shaded in the summer; in the spring, the progress of the cuttings may be assisted by being placed in a frame with a gentle bottom heat. But the most general plan of multiplying Moutans is by layers, the shoots for which purpose should be planted either in protecting pits, or, in sheltered borders, which should be covered with mats spread over hoops; the branches when laid down, require a longer time than is usual with common shrubs to emit roots, and the largest are seldom fit to be removed till they have remained two years attached to the stool. The soil used for this operation is good rich loam, made light by a considerable mixture of sand, with the addition of one-fourth part of heath mould. The shoots when laid down require to have a longitudinal slit, or tongue, made in the inner side of the bend; and this must be done with care, for, being brittle, the wood is liable to break; the tongued part should be bedded in a mixture of loam and sand.

In addition to the above, it may be interesting to know the nature of the methods of propagating the Moutan in use among the Chinese. Upon this subject we have no information, except from the accounts in the *Mémoires sur les Chinois*, before alluded to. According to these, the modes of propagation, exclusive of that by seeds, are threefold, viz. by suckers, by splitting the stem, or by grafting.

When suckers are produced by an old plant, the earth is carefully removed from about its roots, which are laid bare till the whole of

the union of the sucker with the parent root is uncovered. They are then separated, but the wound of the old plant is suffered to remain exposed for a day or two till its surface dries; dry earth is then placed about it, and care is taken that no moisture is applied for the space of a fortnight afterwards. The young sucker is enwrapped in fresh leaves, in which state it is kept till the lower end becomes shrivelled, and so much contracted, that the two opposite sides touch each other. It is then planted in rich earth, which is rather dry than otherwise, and kept well shaded till it has rooted; care being taken to guard it from frost.

When the operation of splitting the stem is performed, an old plant is selected, and its stem is regularly slit into four or six equal portions, from the top to the very bottom, among the roots; the divisions of the stem are kept apart until the wounds begin to dry, when the middle of the stem is filled with a sort of plaster, made with mortar (*mortier*) and rich earth, among which is mixed fat and a small quantity of sulphur. The plant so prepared is suffered to remain till the autumn, when each division is fit to be separated, with the portion of the root belonging to it.

Grafting is practised on the roots of the more common Moutans; when this is attempted, the root of the stock is laid bare during some weeks, to the depth of three or four inches; just before the autumn shoot is made, the earth is again heaped about the root, and soon afterwards, when the sap appears in full motion, the operation is performed. This is done in the way we call crown grafting. A kind of clay made with rich mould, formed into a sort of mortar with the expressed juice of Herbaceous Pæony roots, is then applied about the scion and stock. The plant is afterwards shaded from the sun, and protected from frost during winter; and, when the spring arrives, it is left to take its chance. If the scion ever pushes, all danger of losing it is past.

ARTICLE III.—ON TAKING IN GREENHOUSE PLANTS,

THAT HAVE BEEN IN THE OPEN AIR DURING SUMMER,

AND TREATMENT IN WINTER IN THE GREENHOUSE.

BY THE FOREMAN OF A LONDON NURSERY.

THE attempt would be impertinent, to fix the precise day in which greenhouse plants should be housed, the variations in the temperature of the seasons, in different years, render it impossible. However as the young tender shoots of the summer's growth, are extremely liable to be injured by the frost; as soon as any symptoms of this

appear, they should be removed to their winter quarters ; where, if the greenhouse is built on a proper principle, they can still have the benefit of the free air, and at the same time be in a situation to be protected, when necessity requires.

Impressed with this idea, I think they should at all events, be removed in the earlier part of September. Therefore, about a fortnight before that time, they should be regularly examined, and any roots that may have extended themselves through the holes at the bottom of the pots, cleanly cut away,* with a knife or some such instrument : this tends to stop the too luxuriant growth, and being executed at a proper period, before their final removal, they have time to recover themselves from the partial check they may have received by it ; which would come doubly severe, if deferred until the time of removing them into the house ; the transition from the cool bottom on which they stood, to the dry boards of the greenhouse stage, being so materially different.

It will be also requisite to have the flues examined as to their cleanliness, and tried with a smothering fire, lest there should remain any cracks to admit the smoke into the greenhouse. The wall should likewise be fresh whitened, at least every second year ; and any repairs that may be necessary to the stages, or glass-work, previously rectified.

Things being thus prepared, and the time fixed on to remove the plants, the large heavy ones, such as orange trees, &c. should be carried to the places where they are to stand at once, as it will be very inconvenient to remove them after the house becomes crowded with other plants. The smaller kinds must be regularly placed in front of them, with a gradual descent from the back, down to the lowest in front, placing any curious, or handsome plants in flower, in the most prominent and conspicuous situations. They must not be set too close when first put in, as it would occasion most of their tender leaves to turn yellow, and fall off ; neither should they, if the house happens to have been built on a close construction, be by any means taken in when their leaves are wet.

In large collections, could the different genera be kept together, it would I think have a much better effect ; in particular the more numerous ones, such as heaths, *Proteas*, geraniums, &c. and indeed

* The cutting of the extraneous roots away at this season, is not likely to be of such serious consequence to the plants, as if done when shifting, as the ball of root is preserved undisturbed within the pot, yet in some of the more luxuriant species that may have been plunged in the borders, it will be preferable to break the pot rather than destroy the roots, and of course the plant put into a larger one immediately.

heaths are of that unsociable nature, that they will not do well if mixed promiscuously with other plants, especially any of the broad leaved kinds: it is implied by this observation, that there should, if possible, in all large collections at least, be separate houses for these very numerous genera; but in all houses there is a variety of situations; some more airy, near the windows, on end and front benches, for such as heaths, Proteas, &c.; all mountainous, Cape plants, should be kept if possible on shelves, such as graphaliums, bulbous geraniums, &c. &c.; some closer, as the principal stage and back benches, for orange trees, geraniums, and all such as grow in low sheltered situations: thus in every instance it is necessary to attend to natural habit.

When they are all housed, and dirt of every description taken away, let as much free air be given as possible in the day time; and even at night, should the weather prove moderately mild, and free from any appearance of frost. In fact, I have seldom seen frosts at this early season so severe, as to injure any greenhouse plants, that were not immediately exposed to its perpendicular effect: therefore the front windows may be kept open continually, unless there is a prospect of its being particularly severe, or accompanied with cold driving winds, in which case it will be necessary to keep them pretty close.

If air is too sparingly admitted at this season, when many of the plants have not yet finished their summer's growth, it will inevitably cause them to produce weak and tender shoots; which will be extremely liable to damp off at a more advanced season, when the house must be unavoidably kept close on account of the severities of the external air; and besides, it will tend to give them a more general tender habit, and render them less able to resist the winter colds than they otherwise would. Hence it is evident, that they cannot receive too much air, whenever the state of the external air will admit of it, by being free from all appearance of frost; as it will be so much to their advantage to be thus hardened, before the winter assumes its severest front.

This is a practise I would strenuously recommend to all cultivators of exotics, to be observed the whole period they remain in the house, their own observations on the state of the weather being their constant guide.

Water should also be plentifully administered when they are first taken into the house, as the dry board, on which they now stand as well as the elevated situation, and free circulating air, occasions them to require more than when they stood on the moist earth;

however, by no means go to the extreme, giving it only when evidently necessary.

It is a common, but in my opinion, a very erroneous practice, to place pans under the pots, indiscriminately, and by many they are regularly filled with water, twice, or thrice a week, or perhaps every day, whether the plants may want it or not; and this they are pleased to term a saving of labour; and it eventually becomes so in fact; for they have seldom so much care, and trouble on their hands, in the spring, many of the most curious plants being killed by this treatment: for, although it may not perceptibly injure the coarser kinds, its pernicious effects on the tenderer sorts must be evident to the commonest observer; as the earth in the bottom of the pot, by being constantly in the water, becomes coagulated, and sour, and is consequently liable to rot the young fibres, by which the plants in general contract a languid and sickly habit.

As the close foggy weather advances, water must be given more sparingly, else it will conspire with the atmosphere to increase the damps of the house; which will inevitably injure the plants by rotting their leaves. These, and dead flowers, should be picked off as soon as they are observable; otherwise they will make a very disagreeable appearance.

Early in November all the tenderer Cape bulbs should be planted; viz: *Ixia*, *Iris*, *Moræa*, *Gladiolus*, *Antholyza*, *Galaxia*, *Oxalis*, *Lachenalia*, *Ornithogalum*, &c. &c. as they generally commence vegetation about this time, and will supply a most beautiful variety of flowers for the ensuing spring and summer.

When growing they should be kept pretty moist, particularly the stronger species; otherwise they will not flower freely, and such as do will not be so fine: however, when they have done flowering, and the grass indicates an end to vegetation for the season, they should be gradually dried; and when perfectly so, either set in the pots in a dry sheltered place, or otherwise taken out of them, and put in separate paper bags, in sorts, until the Autumn: I prefer the latter process; it is necessary to keep them in sorts, otherwise the strong, which are not always the finest kinds, would smother the delicate ones, that in many instances produce the most brilliant, and frequently odoriferous flowers.

The months of November and December, seem to be more noxious to the health of plants, than any other season; by reason of their being full of sappy leaves, and the remains of many of the Autumn flowers being still on them, when the weather, (which at this time generally becomes close, and chilly,) renders it necessary to keep the house

shut, and warm; this occasions a most pernicious damp to exhale from every part of the house, and even from the earth in the pots; which fixes on the leaves, and other parts of the plants, to their inevitable injury, particularly the younger parts, such as were the produce of the preceding summer. If this kind of weather continues for any considerable time, it will be advisable to give a little fire heat, to help in drying up these baneful exhalations, and also as much air, as can be safely admitted by the doors, and front windows; more especially when fire is added; otherwise the heat of the flues will, instead of expelling the contaminated air, rather occasion it to exhale more freely, and be of worse consequences.

At this season also, the plants should be regularly examined to clear them of all dirt, and also to scrape off any moss, &c. that may have grown on the surface of the mould, and to renew it with a little fresh loam. This contributes much to their good appearance, if neatly executed.

Very little fire heat seems to be requisite to the preservation of greenhouse plants, in this climate; in fact, the less it is found necessary to use, the better. I have never practised it, (except in the case of damps, as before mentioned,) until I perceived the frost so severe, as to lower the spirit in the thermometer several degrees below the temperate point, and then merely sufficient to raise it again to the above mentioned point. If this can be done without the assistance of fire, so much the better, for which purpose, bass mats must be used along the lower parts of the house, where they can be conveniently fastened; these will be of infinite service even when fire is used, as less of that element will suffice; but they should be always taken off in the day to admit the light, unless the weather happens to be particularly severe.

Sometimes in the depth of winter, there is a succession of very clear weather for several days together, wherein warm sunny days, succeed the coldest frost, and nights in which fires have been absolutely necessary; in this case, it will be requisite to give all the air possible in the day, (unless strong harsh winds, or other occasional preventatives happen to prevail,) observing, to shut the windows up close, early in the afternoon, so as to include part of the natural heat of the atmosphere, within the house. Such weather renders an increase of water necessary, especially over the entrance of the flues, where the fires have the greatest force. It should be administered in the morning, and ought to be kept in the house all night to expel any frosty particles it may have imbibed, and render it nearly equal to the temperature of the air of the house.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *MYANTHUS BARBATUS*; var. *labello albo*. Bearded Flywort, white tipped variety. (Bot. Mag. 3514.) Orchideæ. Gynandria Monandria.—A native of Demerara, from whence it was introduced into this country, by Mr. Allcard, Stratford Green, Essex. And in the collection of that gentleman, it bloomed in May, 1836. The flowers are produced upon a long and many flowered raceme. Each flower is about two inches across, having narrow petals, of a dark green, spotted with dark purple within, with paler spots on the outside. The lip is fringed with numerous long white hairs. Altogether it is a very pretty and singular flowering plant, meriting a place in every collection. *Myanthus*, from *muia*, a fly; and *anthos*, a flower. The flowers look very much like a pressed fly, when they are dried.

2. *PÆONIA ALBIFLORA*; var. *Pottsii*. Potts' Chinese Pæony. (Brit. Flow. Gard. 351.) The late Mr. John Potts sent this very handsome variety from China, in 1822. The flowers are of a large size, double, of a rich crimson colour, and are by far the most splendid of all the varieties of *albiflora*. The plant is quite hardy, and a profuse bloomer. In the garden of R. H. Jenkinson, Esq., Norbiton Hall, Kingston, Surrey, it has bloomed very freely, having, this season, about forty flowers upon a single plant.

3. *SARRACENIA RUBRA*, Red Side Saddle Flower. (Bot. Mag., 3515.) *Sarracenia*; *Polyandria Monogynia*. A native of Louisiana, in the Southern United States of America. The plant has often been introduced into this country, but being very difficult in cultivation, has been lost; a plant, however, has bloomed in the stove of the Glasgow Botanic Garden, March 1836. The flower scape rises to about two feet high, producing one flower. The flower hangs in a drooping manner; of a rich deep red colour, having a splendid appearance. The flower is from two to three inches across.

4. *STREPTANTHUS HYACINTHOIDES*, Hyacinth-flowered (Bot. Mag., 3516.) *Cruciferae*; *Tetradynamia Siliquosa*. An annual plant, a native of the Texas, where it was discovered by the late Mr. Douglas. The stem grows to about a yard high, branched. The flowers are produced upon long racemes, bearing numerous flowers, which hang in a pendulous manner; they are of a bluish-purple colour. The flower much resembles a small hyacinth blossom, but having very narrow petals. The plant has bloomed in the Greenhouse of the Glasgow Botanic Garden.

5. *STROBILANTHUS SABINIANA*, Mr. Sabine's Strobilanthus. (Bot. Mag. 3517.) *Acanthaceæ*; *Didynamia Angiospermia*. Synonym's, *Ruellia Sabiniana*. *R. argentea*. *R. macrocarpa*, var. *argentea*. This pretty flowering plant was introduced into this country by Dr. Wallich. It is a native of Nepal. It requires a hothouse temperature. Dr. Wallich named it in compliment to Joseph Sabine, Esq., to whom Horticulture is very greatly indebted; we hesitate not to say, that the present superior state of gardening, and the very extensive taste for it which now prevails, owe, in a considerable degree, their rise to that gentleman. The *S. sabiniana* grows three feet high, shrubby. The flowers are produced in terminal spikes. The corolla is funnel shaped, lower part of the tube yellow, the rest of a bright bluish-purple. It blooms the latter end of winter.

6. *YUCCA DRACONIS*, Dragon-tree-leaved Adam's Needle. (Bot. Reg., 1894.) *Liliaceæ*; *Hexandria Monogynia*. A very pretty flowering species, cultivated in the Nursery Establishment of Messrs Backhouses, York. It grows freely in the open ground. The spikes of flowers rise about three feet higher than the foliage, producing an immense number of blossoms. The segments of the flower expand much more in this species than any of the others, which adds very much to its interest and beauty. The petals are of a greenish-white, with the tips of

the petals of a deep rosy-purple. The plant is a native of Carolina, where, it is said, it will grow to the height of ten feet. Messrs. Backhouses find that *Yucca filamentosa*, *glaucescens*, *rufoincta*, and *recurvifolia*, as well as the above described species, grow and flower in the open air.

7. *YUCCA FLACCIDA*, Weak leaved Adam's Needle. (Bot. Reg., 1895.) This species is probably a native of North America. It is cultivated in the Garden of the London Horticultural Society. This species does not appear to produce a stem as the others do. The flower stalks rise some feet high, each producing a panicle, having numerous flowers of a greenish yellow colour, the tips of the petals having a small spot of red at the lower side.

8. *CENTAUREA BALSAMITA*, Costmary-leaved. (Brit. Flow. Gard., 355.) Compositæ. Syngenesia, Polygamia Æqualis. Synonym, *Carduus orientalis*. Seeds of this plant were sent from the Imperial Botanic Garden at St. Petersburg, to this country. It is a native of Armenia, and has been recently introduced. The plant is a hardy perennial. Stems rising to about two feet high, each terminated by a moderate sized flower, of a sulphur colour. It is cultivated in the Chelsea Botanic Garden.

9. *CRATÆGUS ARONIA*, The Aronia Thorn. (Bot. Reg., 1897.) Synonym, *Mespilus orientalis*. This species is a native of the Levant, and is one of the largest and most like timber of any of the thorns. The plant is a very free grower, and grows to a very neat form. The fruit is as large as a fine sized cherry, of an apricot yellow colour, and, being produced in such abundance, causes the tree to be very ornamental, and a most suitable one for the lawn, or other part of the pleasure ground. *Cratægus* from *Kratos*, strength; alluding to the wood.

10. *CYTISUS ÆOLICUS*, Æolian Cytisus. (Bot. Reg., 1902.) Diadelphica Decandria. The plant is a native of Stromboli, where it was discovered by Professor Gussone. Seeds of it were sent from Naples, to the Hon. W. F. Strangways, in whose garden, at Abbotsbury in Dorsetshire, it bloomed this year. It is an erect growing shrub, the branches terminated with racemes of yellow flowers. It is supposed that the flowers will be handsomer when the shrub is older, and that they will be produced more abundantly.

11. *EPIDENDRUM CEMULUM*, Emulous Epidendrum. (Bot. Reg. 1898.) Orchidaceæ; Gynandria Monandria. This pretty neat flowering species has flowered in the collection of Richard Harrison, Esq.; to that gentleman it was sent by Mr. Hesketh. It is a native of Para. The plant very much resembles *Epidendrum fragrans*. The pseudo bulbs of *E. cernuum* are perfectly oval, and not tapered to each end as in *E. fragrans*. The flower stalk is about three inches long, producing three or four flowers upon each.

12. *ESCALLONIA ILLINITA*, Varnished Escallonia. (Bot. Reg., 1900.) Escalloniaceæ; Pentandria Monogynia. A very pretty evergreen species, much more hardy than any other of the genus. The leaves are broad of a pale green colour varnished, producing a very pretty appearance. The plant forms a very neat bush. The branches are terminated by racemes of many flowers, which are white, tinged with green at the under side. It blooms from the end of July to October. The plant emits a very powerful scent, rather disagreeable. It is a native of Chili, growing in the Mountainous parts of that country. *Escallonia Montevicensis* is quite hardy with us at Wortley, grows very vigorously, and blooms profusely; the flowers being white. *Escallonia rubra* is equally hardy, thrives and blooms most admirably. All the species are highly deserving a situation in every shrubbery. They are handsome plants even without flowers, but very attracting when in full bloom, more particularly so when the bush has got to a tolerable size. We find the plant to flourish well in a mixture of loam and peat.

13. *EUPHORBIA BOJERI*, Mr. Bojer's Spurge. (Bot. Mag., 3527.) Euphorbiaceæ; Monæsia Monandria. Professor Bojer sent this species from Madagascar. It is a very pretty stove plant, and merits the title of *splendens*, much beyond the one so called. It has bloomed in the stove in the Glasgow Botanic Garden, at the end of winter, more or less at most seasons of the year. Each involucre has four scarlet bractææ, half an inch across, which produce a pretty appearance. This species is not so full of spines as *E. splendens*, more coriaceous, more oval and retuse leaves, the bractææ are of a much higher colour.

14. *FUCHSIA MACROSTEMA*; VAR. *RECURVATA*, Large-stamened *Fuchsia*. Recurved flowered variety. (Bot. Mag., 3521.) *Onagrarica*; *Octandria Monogynia*. This very pretty flowering variety was raised from seed by Mr. Nevin, at the Glasnevin Botanic Garden, Dublin. The plant is of a most vigorous habit. The fine red calyx, has its five divisions much recurved, exposing the pretty blue petals to full view. The flower and flower stem are near six inches long. Like every other of this graceful, pretty flowering genus, the present deserves a place in every collection of *Fuchsias*.

15. *LAPEYROUSEA ANCEPS*, Two-edged Stem. (Bot. Reg., 1903.) Synonyms, *Gladiolus anceps*, *G. denticulatus*; *Ixia Lapeyrousea*, *I. pyramidalis*; *Iridaceæ*, *Triandria Monogynia*. The plant is a native of the Cape of Good Hope. It requires to be cultivated in the Greenhouse or pit frame. The stem rises about six inches high, each producing from six to eighteen flowers. The flower is about three quarters of an inch across, white, and fragrant, emitting a very agreeable perfume. It blooms from June to August. *Lapeyrousea*, so named in compliment to Mons. Picot de la Peyrouse. Author of the Pyrenean Flora.

16. *MONARDA ARISTATA*, Awned. (Bot. Mag., 3526.) Synonym, *M. citrodora*; *Labiata*, *Diandria Monogynia*. This species is a native of Arkansas Territory, as also about San Felipe, in Mexico. It has recently been sent to this country by Mr. Drummond. The plant is quite hardy, and blooms from July to September. It has been stated to be perennial, and on some occasions annual. The stem rises to about a foot high, producing whorls of pale rose-coloured flowers.

17. *MYANTHUS DELTOIDESUS*, Triangular lipped Flywort. (Bot. Reg., 1896.) *Orchidaceæ*; *Gynandria Monandria*. This very singular flowering *Orchideous* plant, is a native of Demerara, found upon trees near to the great waterfall of the Demerara river. It is cultivated in the collection of Richard Harrison, Esq., Aughtburgh, near Liverpool. The flowers of this species are very distinct from any other, the lip is destitute of the fringe of hairs, which *M. cristatus*, and *M. barbatus* have. The flower stem is near a foot long, bearing about half a score blossoms—each near two inches across; the lip is of a rich purple colour; the other parts of the flower green, spotted with dark purple, and have a very pretty appearance. Dr. Lindley has observed, "that when the third part of the genera and species of *Orchideous* Plants was published in 1833, he was only acquainted with *Myanthus cernuus*, and *cristatus*—the latter, the learned Professor considered, a *Catasetum*, and the former as the only genuine species of the genus; thus, in some degree mistaking the real generic character of *Myanthus*, in consequence of the imperfect materials of which he was then in possession. But now that four species are known in a living state, it has become necessary to alter the original character of the genus, so that it may include *Catasetum cristatum*. This, Dr. Lindley thinks is more advisable than to unite *Myanthus* with *Catasetum*, as recommended by Sir William Hooker. If the latter measure were to be adopted, it would be equally necessary to suppress the genera *Monachanthus*, *Mormodes*, *Cynochus*, &c., the effect of which would be to form a heterogeneous collection of species, the principal combining character of which, would reside in the peculiar succulent stems. As they now stand, each has a clear distinction, and each possess as many species as are usually assembled under newly discovered types of structure. *Myanthus* has already four; *Cynochus* two; *Monachanthus* two; *Catasetum* five; and *Mormodes* one species.

18. *PENSTEMON HETEROPHYLLUM*, Various-leaved. (Bot. Reg., 1899) *Scrophulariaceæ*; *Didynamia Angiospermia*. The late Mr. Douglas discovered this plant in California, from whence he sent seeds to the London Horticultural Society. It is a hardy herbaceous species, blooming from June to October. The flower stems rise to about two feet high, and bear a profusion of flowers of a purplish-red colour, of a very handsome appearance. Each flower is near an inch and a half long. It is a very desirable species, and merits a situation in every flower garden. *Penstemon*, from *pente*, five, *stemon*, stamen.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON HOYA CARNOSEA.—I shall be much obliged if you, or any of your correspondents, can render me any information on the best mode of raising and treating the *Hoya carnea*. Also a list of 20 or 30 sorts of the most hardy and vigorous kinds of Chinese Roses—climbers, to run up a trellis facing the north, and a few for the south; state their height. Also a list of 20 or 30 sorts of hardy annuals, new sorts, and the time for sowing. If this could appear in your next number, I shall be still more obliged.

PEDRO.

ON INSECTS.—At a meeting of the Entomological Society, the secretary called the attention of the members to the destruction committed in the Market Gardens around London, during the present season, by a species of *Aphis*, which had abounded and propagated to an incredible extent, upon Cabbages, Broccoli, &c., and which had not previously been observed by the Market Gardeners, by whom it is called a "New Species of Blight;" it was stated, that by watering the plants with tobacco and lime water, the injurious insects might be destroyed. I beg leave to intimate, that I have tried the experiment with eminent success upon plants infested with the insects named to such an extent as to be considered incurable, but which are now entirely free from them, and in a most healthy and thriving condition.

AN ORIGINAL SUBSCRIBER.

Baywater, Sept, 29th, 1836.

ON COMPETITION AT FLORICULTURAL EXHIBITIONS, &c.—As the general rule of competition seems to be imperfectly understood by many competitors, and I, as well as others, wishing to have a more general knowledge of the same, I here forward for insertion in the Cabinet, the following query. A competition list standing as follows:—For nine best Tulips in classes, viz., three Roses, three Byblæmens, and three Bizards. Suppose a competition taking place as below, the reader will perceive, that every class is competed for by itself. Now I wish some correspondent could apply the general rule to the opposite table, and show us how A and C stands for competition, for it is quite plain how B and D stands. By answering the above query in the December Number, you will oblige me, as well as others,

	<i>Rosrs.</i>	<i>Bib.</i>	<i>Biz.</i>
A	1	3	3
B	2	1	1
C	4	2	2
D	3	4	4

JAMES FIGGANS.

ANSWER.

A LIST OF THE BEST SHOW PINKS.—In answer to your correspondent, J. S., p. 187, I am induced to send you the following list of the best Show Pinks, at present in cultivation; some of them are old flowers, but they need not be despised for that as they are real good Show Flowers.

J. K.

Admiral Codrington
Barrett's Codrington
Barnard's Bexley Hero
Bow's George the Fourth
Beauty of Shrewsbury
Clark's Matilda
Colonel Austen
Copley's Mars
Davey's Lord Brougham
Day's Earl of Uxbridge
Faulkner's Duke of St. Albans.

Ford's Formosa
——William of Walworth
Hogg's Fanny Kemble
Hopkin's One in the Ring
Hardstone's Conqueror
Knight's Lady Acland
Keyne's Reformer
Kilmer's Matchless
Lodge's Red Rover
La belle alliance
Marshall's Defiance

Norris' Rainbow

Norman's Delight

— Benjamin

— Beauty

— Conqueror

— Earl Grey

Piggott's Beauty of Cheltenham

Pitman's Magnificent

Parry's Union

Pillard's Eyngsforth Beauty

Rolf's George the Fourth

Rainsford's Prudence

Ripshaw's Queen Adelaide

Taylor's Green Grass

— Nonpareil

— Beaute Supreme

Unsworth's Omega (extra)

Wood's Eminent

Wilmer's Matchless

— Lady Paget

Well's Sultana

— Superb

— Princess Victoria

Young's Joe Miller

FANCY PINKS.—Blush Superb, Roi de Roses, Smith's Windsor Castle, Wood's Hebe.

REMARKS.

THE SIGNS OF FAIR WEATHER.—When the sun is fair and bright at its rising in a morning, and is blushing without spots or black clouds near him when he sets at night, it is a sign of fair weather. When the moon is three or four days old, and has her horns sharp and pointed very bright, it is a sign of fair weather till she comes to the full, if not the whole month. If the moon has a bright shining circle about her, when she is at the full it promises fair weather for many days. When the stars shine clear and bright, and seem to dart out pointed rays, it is a sign of fair weather. Also when clouds sink low, as into vallies at south-east or south-west, it is a sign of fair weather. If the tops of hills be clear, it is a sign of fair weather. If there are to the north-west, white scattering clouds like fleeces of wool, it is a sign of fair weather. When white clouds or mists hang just over rivers, and disperse no further, it is a sign of fair weather. When a rain-bow appears after a shower, and the blue yellow part of it be very bright, and the highest colour, they are tokens of fair weather. When bees fly far from their hives, and come home late, it is a sign of fair weather. When there are great swarms of gnats, it presages fair weather. Glow-worms shining by night, is a sign of fair weather. When larks rise very high, and continue singing a long time, it is a sign of fair weather. When kites fly aloft, it bespeaks fair dry weather. The Lord Bacon gives this reason for it, because the kite mounts most into the air of that temper, wherein he delights; for this aspiring bird does not so much affect the grossness of the air, as the cold and freshness of it; for being a bird of prey, and therefore hot, he delights in the fresh air. When lapwings or plovers fly high and then low, and make continual crys, it bespeaks warm weather. When swallows fly high, it is a sign of fair weather. When owls hoot much, it is a sign of fair weather; and though owls do always hoot much both in wet and dry weather, yet there is this difference, that their hooting is more clamorous in wet weather, but more easy and sedate in fair weather.

MONUMENT TO MR. DOUGLAS.—It is proposed to erect a monument to the memory of the late lamented Mr. D. Douglas, and it is hoped that all botanists and amateurs will aid the undertaking by subscribing towards it; as also to testify their sense of the great services rendered to Botany by his exertions. J. K.

NEW AND SUPERIOR DAHLIAS.—During the last and present month, we have taken our annual tour for ascertaining which are the best sorts of Dahlias, either come out last season, or new ones likely to come out next. A list of them we are preparing for a succeeding number, as also a list of other plants, which came under our observation.

CONDUCTOR.

DEATH OF MR. CUNNINGHAME.—Intelligence has been received of the death of Mr. Richard Cunningham, the Colonial Botanist, at Sydney, New South Wales. The unfortunate man was murdered by savages in the interior of the country, whither he had accompanied an expedition, whom he unfortunately wandered away from in search of plants, (as was his duty as a Botanist,) and was lost in the bush, and never seen afterwards; but from intelligence gained from

some of the natives, it was discovered that he was murdered by savages, who mistook him for an enemy. Mr. C. was a very able botanist, and of an amiable and obliging disposition, he was beloved and respected by all who knew him, and his death is universally lamented by every colonist in New South Wales, and his friends in England. Thus, within the short space of two years, we have to mourn the loss of three eminent British collecting Botanists, Mr. D. Douglas, who met his death in the Sandwich Isles; Mr. Drummond, who fell a victim to the unhealthiness of the Mexican climate; and the above unfortunate Mr. Cunningham, all three of whom may be said to be martyrs to the science of Botany, and whose labours will never be forgotten from the many beautiful additions to our flower gardens, which each of them introduced, and many of which bears their name, and will transmit their memoirs to the latest posterity.

GRAND DAHLIA SHOW AT SALT HILL, NEAR WINDSOR.

THIS splendid exhibition was honoured by the presence of Her Majesty, the Princess Augusta, and a large party from Windsor Castle. Her Majesty appeared much delighted with the various collections of flowers, and condescended to name two splendid seedlings, one a yellow belonging to Mr. Wilmer, and a lilac of Mr. Browns. The first was named *Superba*, and the latter *Beauty*. The judges of nurserymen's flowers, were Mr. Glenn, Mr. Salter, and Mr. Wheeler; the judges of amateurs' blooms were Messrs. Brown, Widnall, Brewer, Gaines, Pamplin, and Willmer. The prizes were awarded as under. Collections of 50 Blooms (private gentlemen or their Gardeners, growing more than 200 plants)—1. Mr. Glenn; 2. Mr. Salter. Stands of 24 Blooms (ditto)—1. Mr. Glenn; 2. Mr. Cooper; 3. Mr. Maher; 4. Mr. Dodd; 5. Mr. Hughes; 6. Mr. Turner; 7. Mr. Weedon; 8. Mr. Roake. Stands of 12 Blooms (growers of less than 200 plants)—1. Mr. Kellner; 2. Mr. Skelton; 3. Mr. Lidgard; 4. Mr. Smith; 5. Mr. Lawrence; 6. Mr. Hancock; 7. Mr. Bragg; 8. Mr. Wakeling; 9. Mr. Maher. Seedlings 1836—Mr. Glenn, Mr. Clark, Mr. Kellner, Mr. Skelton, and Mr. Bland. Ditto 1835—Mr. Maher, two; Mr. Clark, two; Mr. Nevill, one. Collections of 100 blooms (nurserymen and growers for sale)—1. Mr. Mountjoy; 2. Mr. Brown; 3. Mr. Willmer; 4. Mr. Jackson; 5. Mr. Gaines. Stands of 24 Blooms (ditto)—1. Mr. Brown, Slough; 2. Mr. Gaines; 3. Mr. Mountjoy; 4. Mr. Willmer; 5. Mr. Lovegrove; 6. Mr. Pamplin; 7. Mr. Hill; 8. Mr. Lane; 9. Mr. Girling. Seedlings 1835—1. Mr. Willmer for an extra prize, and one other; Mr. Mr. Brown, one; Mr. Widnall, two. Seedlings 1836—Mr. Jeffreys, Ipswich, two; Mr. Gaines, one; and Mr. Wilson, one. Device Mr. Pearson, Silver Medal.

BATH ROYAL HORTICULTURAL AND FLORAL SOCIETY.

ANNUAL DAHLIA SHOW, OPEN FOR COMPETITION TO ALL ENGLAND.

THE fifth and last exhibition of the society of the season, at Sydney Gardens, took place on Thursday, September 15. List of prizes.—Dahlias.—Collection of 24 flowers—1. Rev. S. Ward; 2. Mr. Heale; 3. Mr. J. Sealy. Ditto 18—1. Mr. W. Heale; 2. A. Wickham, Esq.; 3. Mr. Kingston. Ditto 12—1. G. C. Tugwell, Esq.; 2. Mr. Pinker. Seedlings—1. Mr. Kingston; 2. J. A. Wickham, Esq.; 3. Mr. Russ. Extra subscription Dahlia prizes, given in plate.—First Class.—First prize, a handsome silver tankard, value ten guineas, Mr. Mountjoy, Ealing, for the following 48 blooms:—Madeline, Ariel, King Otho, Beauty of Perry Hill, Tarrant's Invincible, Beauty of Cambridge, Clara, Mountjoy's Burquandy, Criterion, Lady Ripon, Yellow Perfection, Sir H. Fletcher, Venosa, Metropolitan Perfection, Cedo Nulli, British Queen, Metropolitan Calypso, Glory, Venus, Countess of Liverpool, Springfield Rival, Beauty of Camberwell, Hon. Mrs. Harris, Hadleigh Champion, Beauty of Lullingstone, Ne plus Ultra, Colville's Perfection, Squibb's Flora, Metropolitan Lilac, Angelina, Brown's Brouze, Mrs. Wilkinson, Forester, Well's Paragon, Neack Rival, Widnall's Paragon, Prince of Orange, Gem or Royal Adelaide, Beauty of Slough, Vulcan, Lady Ann, Paris, Wheeler's Marchioness, Bishop of Winchester, Crimson Triumphant, Scarlet Perfection. Second prize, a handsome silver teapot, value six guineas, Mr. Jackson, Kingston, for the following 48 blooms.—Granta, Mrs.

Wilkinson, Brutus, Queen, Unicorn, Beauty of Dulwich, Triumphant, Tarrant's Invincible, Glory, Thalios, Seal's Fanny Kemble, Norbitton Hero, Ariel, King Otho, Countess of Errol, Mars, Bride of Abydos, Springfield Rival, Lady Errol, Psyche, Cedo Nulli, Agamemnon, Jackson's Lady Sugden, Jackson's Sir Edward Sugden, Dodds' Mary, Beauty of Perry Hill, Prince of Orange, Red Rover, Criterion, Sir H. Fletcher, Metropolitan Calypso, Widnall's Perfection, Paragon, Beauty of Couball, Apollo, Jackson's Rival Yellow, Hon. Mrs. Harris, Angelina, Paris, Sir R. Peel, Newick Rival, Empress, King of the Whites, Gem, Ada Byron, Lord Byron, Lady Ann, Vinosa. Second Class.—First prize, a handsome pair of goblets, value eight guineas, Mr. Gaines, Battersea, for the following thirty-six blooms:—Magnum Bonum, Fanny Kemble, Unicorn, Mrs. Wilkinson, Beauty of Lullingstone, Hermione, Fisherton Rival, Girling's Purple, Kindle's Perfection, Crocus, King Otho, Lady Lascelles, Triumph, Springfield Rival, Miss Wilson, Barnett's Venus, Lord Byron, Conquering King, Bride Abydos, Grandis, Knight's Scarlet, Sir H. Fletcher, Alpha, Westland Marquis, Lady Rendlesham, Beauty of Dulwich, Glory, New Royal Purple, Marquis of Abercorn, Cork Invincible, Venosa, Bronze, January, Brewer. Second prize, handsome silver sugar basin, value five guineas, to Mr. Brown, Slough, for the following thirty-six blooms:—Brown's Royal Adelaide, Brown's King of the Fairies, Brown's Queen Elizabeth, Brown's Corinne, Brown's Ion, Brown's Ariadne, Brown's Quilled Perfection, Brown's Sulphur, Brown's Bronze, Springfield Rival, Smith's Napoleon, Widnall's Perfection, Sir H. Fletcher, Dodds' Mary, Countess of Sheffield, Countess of Moreton, Clark's Royal Adelaide, Mazappa, Bride of Abydos, Criterion, Mrs. Wilkinson, The Queen, Hermione, Rosen Superba, Elphinstone's Polypheumus, Cream, The Star, Douglas's Glory, Lord Liverpool, Metropolitan Rosette, Metropolitan Perfection, Metropolitan Lilac, Three Seedlings. Third Class. First prize, handsome silver cup, value six guineas, to Mr. Squibb, Salisbury, for the following 24 blooms:—Squibb's purple perfection, Squibb's Hon. Mrs. Harris, Dodd's Mary, Lilac Perfection, Alpha, Warminster Rival, Vandyke, Metropolitan Blush, Metropolitan Perfection, Metropolitan Calypso, Springfield Rival, Holman's Scarlet Perfection, Newick Rival, St. Leonard's Rival, Lady Bones, Hermione, Newby's Duke of Bedford, Smith's Napoleon, Clarke's Royal Adelaide, Countess of Orkeny, Glory, Widnall's Venus, Squibb's Purpurea Superba, Mrs. Wilkinson. Second prize, handsome silver salver, value three guineas, to Mr. Mountjoy, Ealing, for the following 24 blooms:—Bride of Abydos, Mountjoy's Burgundy, Criterion, Colossus, Lady Ripon, Glory, Beauty of Perry Hill, King Otho, Sir H. Fletcher, Ne Plus Ultra, Hon. Mrs. Harris, Caesar's Perfection, Springfield Rival, Ariel, Colvill's Perfection, Lady Ann, Well's Paragon, Jupiter, Mrs. Wilkinson, Metropolitan Lilac, Gem, Paris, Vulcan, Newick Rival. Third prize, handsome silver sugar castor, value two guineas, to Mr. Willner, Sunbury, for the following 24 blooms:—Prince of Orange, Hopwood's Lay Ann, King Otho, Mrs. Wilkinson, Countess of Morton, Ariel, Miss Cist, Cedo Nulli, Dr. Halley, Well's Champion, Red Rover, Well's Paragon, Luau, Mrs. Harris, Burgundy, Shine Yellow Perfection, Jeffery's Triumphant, Dodd's Mary, Purple Perfection, Beau Fragera, Leonatus, Gem or Royal Adelaide, Lord Darby, Bride of Abydos. [By some over sight, owing probably to the vast extent of the show, the stand of 24 blooms belonging to Mr. Brown, of Slough, was overlooked until the first prize had been awarded. The judges, however, very handsomely made the *amende*, by voting to Mr. Brown a prize equal in value to the first prize, (six guineas,) for the following twenty-four blooms:—Brown's Corinne, Brown's Ion, Brown's King of the Fairies, Brown's Ariadne, Mrs. Wilkinson, Mazappa, Criterion, Purpurea Elegans, Bride of Abydos, Countess of Moreton, Dodds' Mary, Metropolitan Perfection, Brown's Blue Beard, Brown's Sulphur, Brown's Royal Adelaide, Brown's Goliath, Lilac Perfection, King of the Whites, Smith's Napoleon, Springfield Rival, Four Seedlings.] Fourth Class.—First Prize, handsome pair of butter boats, value five guineas, to Edward Davies, Esq., Entry Hill, Bath, for the following 12 blooms:—Burgundy, Ariel, Bronze, Countess of Errol, Springfield Rival, Hon. Mrs. Harris, Mrs. Wilkinson, Promio, Paragon, Hermione, Calypso, Dr. Halley. Second prize, handsome silver cup, value two and a half guineas, to Joseph Neeld, Esq., M. P., for the following twelve blooms:—Benbank's Ode, Douglas's Glory, Metropolitan Blush, Purpurea Elegans, Hermione, Chippenham Hero,

Captain Ross, Cassino, Hon. Mrs. Harris, Springfield Rival, Calypso, Mrs. Budal. Fifth Class.—Second Prize, handsome silver fish-slice, value two and a half guineas, to G. C. Tugwell, Esq., for the following nine blooms:—New's Polypheumus, Brown's Sulphur, Hon. Mrs. Harris, Elphinstone's Polypheumus, Douglas's Glory, Ariel, Brown's Bronze, Lady Fordwich, Queen. Third prize, pair of handsome silver ladies, value a guinea and an half, to R. Godfrey, Esq., for the following nine blooms:—Heale's Defiance, Jason, Queen of Dahlias, Widnall's Perfection, Hon. Mrs. Harris, Venosa, Village Maid, Touchstone, Queen of Selwood. Seedlings.—First prize, handsome pair of salts, value a guinea and a half, Mr. Brown. Second ditto, sugar tongs, value one guinea, Mr. Gaines. [Mr. J. Harris of Upway, Dorset, produced several very beautiful seedling dahlias, which had it been within the means of the Society, would certainly have obtained a prize.] Drawings of flowers.—Artists' prizes—1. Miss Rosenburg, Bath; 2. Mr. J. Wakeling, Walworth, Surrey both for groups. Amateurs' ditto,—1. Miss Mintorn, 7, Frieland Place, Clifton, for a group; 2. Mrs. St. John Maule, of the Villeas, Batherton, for a single flower.—An Extra Prize was awarded to Mrs. G. P. Smith, for some beautiful paintings of fruit.

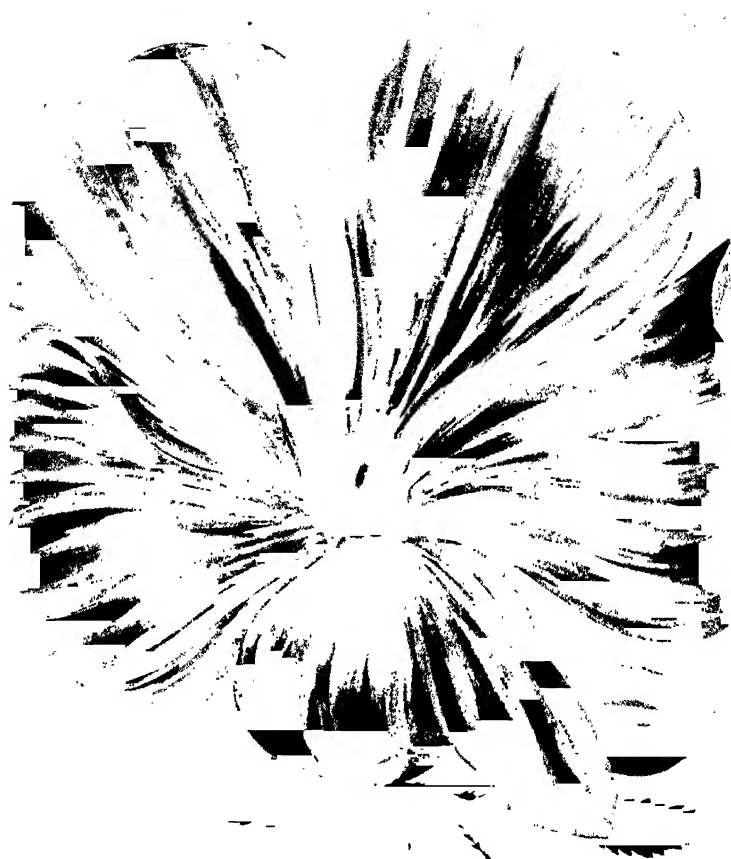
SHEFFIELD GRAND HORTICULTURAL SOCIETY.

On Wednesday and Thursday, Sept. 14 and 15, the exhibition of flowers, fruits, plants, and vegetables, open for competition to all England, took place at the Botanical Gardens. Beautiful as were many of the exotics exhibited in the conservatory, particularly the orchideous plants and other rarities, the chief point of attraction was manifestly the dahlia tent; and certainly the extensive and diversified display, consisting, as it did, of every conceivable variety of this fine flower, was eminently interesting. Judges—Mr. Lambert, Wadsley House; Mr. Cameron, Birmingham; and Mr. Wilson, Gopsal, seat of Lord Howe. The following is a list of the prizes, which were awarded as follows:—Dahlias.—Stand of 50—1. Silver cup, value £15, Mr. Widnall; 2. Silver cup, value £10, Mr. Levick; 3. Silver cup, value £5, Mr. J. Billington. Ditto for 24—1. Silver cup, value 7*l.*, Mr. Windall; 2. Silver cup, value 5*l.*, Mr. J. Spencer; 3. Cutlery, value 3*l.*, Mr. Bates. Ditto of 12—1. Silver Medal, Mr. N. Wilson; 2. Table cutlery, Mr. Taylor; 3. Salts, value 4*l.*, Mr. J. Dyson. Seedling, (unnamed)—1. Snuff-box, value 5*l.*, Mr. Harrison; 2. 3*l.*, Mr. Wilson, 3. 2*l.*, Mr. Windall; 4. 1*l.*, Mr. N. Wilson; 5. Snuff box, Mr. T. Clark. Single Specimen (not a seedling)—£2. 2*s.*, Mr. Taylor. Judges—Mr. Lowe, Upper Clapton, London; Mr. Cunningham, Edinburgh; Mr. Ryder, Leeds; and Mr. Buchanan. Blithefield, seat of Lord Bagot. Plants.—Orchideous (collections)—1. Silver cup, value £10, Mr. Cooper; 2. Silver cup, value £5, Mr. Menzies. Stove (collection)—1. Silver cup, value £10, Mr. Paxton; 2. Silver cup, value £5, Mr. Appleby. Greenhouse (collections of 20)—1. Silver cup, value £10, Mr. Menzies; 2. Silver cup, value £5, Mr. Paxton. Hardy (collection of 12)—Silver cup, value £5, Mr. Menzies. Orchideous (single specimen)—£2. 2*s.*, Mr. Paxton. Greenhouse—£2. 2*s.*, Mr. Menzies. Hardy—£1. 1*s.*, Mr. Menzies.

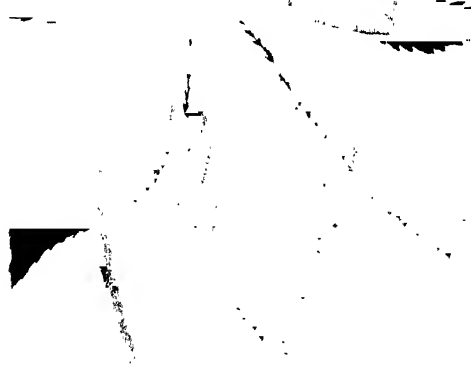
REFERENCE TO PLATES.

Malva Fulleriana.—This very splendid flowering Mallow has recently been raised from seed in this country, from whence obtained we do not know. It is a hardy shrub, growing freely and blooming profusely, if planted in a sheltered situation, and reaches from eight to ten feet high, forming when in bloom a most beautiful object. The plant merits a place in every shrub-bed or border. The stock, twelve plants, has been forwarded to us for disposal at one guinea each. Orders for which will be executed by us, or any of the London Seedsman.

Dodds' Mary Dahlia.—This beautiful variety was raised by Mr. Dodds, Gardener to Sir George Warrender, and it is generally considered by all who have seen flowers of it, to be unrivalled in its class; wherever we have seen it exhibited, either in the country or metropolitan shows, its superiority was so evident, that the most inexperienced in a knowledge of the properties of a first rate flower, were struck with its beauty, whilst those persons capable of ascertaining its merits, without a single exception that we have seen or heard of, state that it is, in its class, superior to any other exhibited this year.



La Tullemannia



THE FLORICULTURAL CABINET,

DECEMBER 1st, 1836.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON DRYING AND PRESERVING SPECIMENS OF PLANTS.

BY PRIMULA SCOTICA.

I HAVE read in your Number for October, "A Lady's" directions for preserving dried plants, and have one or two suggestions to offer by way of improvement, should you think them worthy of insertion. I always use blotting paper to dry the plants in, as it absorbs best; if they are very succulent, I prefer the thick white kind. Instead of wooden boards, I make use of millboards, as less clumsy, (one sheet cut in two,) and two dozen of these will enable the drier to have a great number of plants under press at once. Your correspondent uses a very needless quantity of paper at once. Nearly all plants require only two or three sheets, if they are laid in the innermost; a millboard slid placed between every two or three plants; and at the end of three days, if the papers are damp, the plants should be carefully taken out, and put in the same number of dry, smooth sheets. If necessary, the papers should be changed in two or three days after this, but most plants will be thoroughly dried in six days, some sooner. My weights are laden, with handles, 120lbs., and 210lbs each, and these weights answer better than heavier ones. The plants should be dried, and kept in a dry airy room, where there is no fire. A plant should never be taken from under the weights till it is quite stiff. I keep my duplicates in half sheets of blotting paper, laying those of the same species between two loose sheets, and tying up a number of these leaves and plants between two half sheets of millboard. My herbanum is a large halfbound book, composed of cartridge paper of the largest size, and between each leaf I have a slip of cartridge paper bound in, the length of the page, so that when the book is full, the edges close evenly. Each page is cut with four

ARTICLE IV.—ON WATER PLANTS.

BY THE REV. R. RAY, MELSHAM, DEVON.

THE beautiful Flowers of some of the Water Plants do at least equal, if not surpass many of our most curious land plants, and especially those in the West Indies; I am persuaded many curious persons would have made plantations of them, if they had known how to have done it: but though America exceeds us, yet we are not without them in England, as the Water Lilies and Ranunculuses of several kinds, that are so frequently found in our rivers and ponds, and especially in Cambridgeshire where there is a great variety.

Water Plants may be cultivated in gardens, although there are neither ponds, rivers or springs in them; and I recommend the doing of it in the method following.

Either in garden pots glazed, without holes, or in troughs or cases of wood of oaken boards two inches thick, six feet long, and two feet wide, and two feet and an half deep; if they are for large plants that grow under water, the troughs need not be so deep. The corners of these troughs should be strengthened with iron, and the inside should be well pitched, and the outside painted.

These pots or troughs should be filled one third part with common unmixed earth for water lilies, or pond weeds, or such as require depth of water for their leaves to swim in.

And for water Arums, water Plantains, and Ranunculuses, which love not so much depth of water as the former, they may be filled two thirds with the same earth.

And so for those water plants that grow in Bogs and Marshes, the pots or troughs may be filled with the earth within five inches of the top.

This may be performed in April, when the water plants begin to appear, which may be planted from that time till the middle of June; and the vessels may be filled with water as soon as the plants are put into them.

It ought also to be observed, that many of the water plants are Erratics, swimming about from place to place, as the wind carries them, taking no root in the earth, only striking their roots in the water; as Ducks-meat, Frog-bits, and Water-Soldiers: a small quantity of earth in the bottoms of the pots or cases, will be sufficient to maintain the water in a right state for the support of these.

And indeed, the best way to understand the right method of cultivating them in gardens, will be, to observe the mode of growth, and the exposure of those plants that we would civilize in our gar-

done. For the plain road of nature should be always followed, or at least kept in view, in order to obtain healthful plants.

In thus artificially cultivating water plants, it is my opinion, that those that naturally grow in rivers should be frequently refreshed with spring-water: but such as delight to grow in standing pools or ponds, should be seldom interrupted with it.

It may also be observed, that water plants, when they are removed are as long before they recover themselves, to renew their growth, as land plants are. And whereas it is an usual thing to shelter land plants from the heat of the sun, after they have been transplanted, water plants must be treated quite contrary, and must be exposed to the sun, after their removal.

The seeds of water plants are of two kinds; the one kind swimming on the top of the water, and the other sinking to the bottom as soon as it is slied; following the nature of their mother plants in that respect: for if the seeds of such plants which naturally swim on the top of the water, should sink to the bottom, those seeds would not be in the proper station which is required for their growth; and so of consequence would perish: and so on the other hand, the seeds of such plants, which naturally grow under water, will not swim on the top of it.

It may also be observed, that in our climate no one Water Plant is an evergreen; but all of them are either vivacious or annual, and either loose their leaves down to their roots, or entirely perish, excepting only their seeds; for it is impossible that they should live and grow in frozen waters.

Therefore, in order to preserve their seeds, that we may be supplied with the several kinds from year to year; the plants are to be followed from the flower till they are ripe, and then they should be put into earth and water, to preserve them fit for vegetation the next spring; for that is the way that nature takes, and there is no difficulty of doing this in pots, &c.

They may be put into the pots or troughs as soon as they are gathered, and may there either sink or swim according to their nature, until the spring causes them to sprout; and they will prosper and require but a very little attendance.

I do not doubt but that the seeds of Water Plants will produce as many varieties as the seeds of land plants every year.

As to exotic Water Plants, I am of opinion, that they are best to be procured and brought hither in the seeds; and whereas in America the waters are generally adorned with beautiful plants; if they were procured by some ingenious correspondent in those parts

they may be put (each sort by itself) into bottles of water and earth with large mouths, and only to be covered with a linen-cloth; for if they were stopp'd with corks, the liquor would be apt to ferment: and these bottles might be put into a vessel of water, and so be brought to us; and when we receive them, they should be sown in the pots, as directed before, and set into hotbeds, until the weather in England comes to answer the heat of the climate they came from.

When the seeds are gathered, the person who does it should curiously observe the depth of the water they grow in, the quality of the soil under the water, the situation, and whether it is standing or running water they grow in; and above all, the taste of the water, whether it be fresh, or salt, or brackish.

When we have made a good collection of varieties of Water Plants, they may be disposed into classes, and the several tribes ranged in their proper order, which would be of use to such as read lectures on plants: and for want of this, is the occasion that water plants are so little known.

The most proper season for disposing and removing them, is as soon as they are out of flower, and the leaves begin to decay, which is about the beginning of September. The stems or branches of them should then be cut off near the root; and their roots should be planted at due distances in the pots or troughs, as before directed.

Those Water Plants which come from foreign parts, must be sheltered in a greenhouse, during the winter; for if they, like the exotic land plants, so far preserve their natural season of growth, that they will only sprout in the spring time of their native countries; they will sometimes flower with us in the winter season. And while they are in the greenhouse, they should frequently be refreshed with water, somewhat warmed with the heat of horse-dung or the sun, and be allowed as much air as possible.

ARTICLE V—ON THE CULTURE OF MIMULUSES

BY SALVIA.

SOME time since a Query was inserted in the *Cabinet* from "S. P.," on the culture of the *Mimulus*, not having seen any reply, I beg leave to submit to the perusal of your respected correspondent, my method of treatment, with several of its species and varieties, trusting it will meet the wishes of "S. P."

Mimulus moschatus, Musk-scented. This kind I have found to be perfectly hardy, having stood most severe frost through winter, without the least perceptible injury; more particularly so when grown in an elevated situation, as on rock work, or raised bed. The

tops die in winter, but the roots remain good, and at the return of spring push forth shoots. The plant delights in a rich soil. When the summer season proves dry, the plant requires a free supply of water; if deprived of this it will be weakly and produce few flowers. When grown in such a soil, and well attended with water, I have had the plant to grow two feet high. I tried a single plant in a rich soil, and pinched off all suckers as they appeared, and I had the pleasure to see a fine plant two feet high, clothed with blossoms, this was grown in a pot, placed in the flower garden.

I have several vases placed in a flower garden, a plant of a Fuchsia, or other ornamental plant, is placed in each, being grown in a pot, I had a circular pot a few inches deep, made to fit to the inner rim of the vase, and up to the edge of the pot containing the Fuchsia, &c., in this I planted the *Mimulus moschatus*, attended it well with water, the shoots pushed rapidly, and hanging gracefully down the side, flowered abundantly, having a pretty appearance, and perfuming the air to a considerable distance. I painted the vase green in order to show the flowers to advantage.

I find that the plant speedily exhausts a soil that was well enriched at the first planting, and if not replanted, soon becomes weakly. I, therefore, replant every second year, by taking up the roots as soon as the shoots push at spring, in entire masses, with the soil adhering and placing such upon a rich soil, fill up the interstices with similar soil, in this way the plant grows vigorously the first season.

This plant is very ornamental when grown in pots, and kept in a greenhouse or room, a liberal supply of water being given—keeping a portion in a stand in which the pot is placed.

The plant is easily propagated, either by division of the roots, &c., by sowing seed in the spring, or even by cuttings of the shoots.

Mimulus roseus.—This is a very delicate flowering species, requiring a rich sandy loam. It is easily raised from seed, and flourishes well, either in the open ground, or cultivated in pots. The flowers are not produced so numerously as in any other species or varieties I possess, but they are of a pretty rose colour.

Mimulus variegatus.—This is a very neat and pretty flowering species, making a showy appearance; it delights in a rich loam. A bed of it looks well. It also grows freely in pots. The plant is easily propagated, either by seed or division. It is a far prettier species than the *roseus*, and deserves to be in every flower garden.

Mimulus rivularis.—A considerable number of very handsome varieties have been raised from this species, as *Youngii*, *Smithii*

Elphinstonea, *Rawsoniana*, *Wheeleriana*, *Ranbyana*, &c. This plant delights in a rich, moist soil, mixed with sand, and if it be a little shady it is beneficial. The colours of the flower are better, and the plant more vigorous. A very free supply of water is necessary, in order to grow this successfully. I have had a single plant to grow three feet and a half high, and be six feet in circumference, producing a vast profusion of flowers, most amply repaying the little extra attention paid to its culture. When I obtained this plant at first, I was instructed to grow it in a small shallow pond, keeping the roots immersed in water, I was told that it would there succeed far better than by any other method, but in this particular I find it very much to the contrary. A soil as above described, and a good supply of water in dry weather, is all that is required. I had a plant of *M. Elphinstonea*, grown in a pot this summer, the size above particularized. The species and all its varieties, are readily increased by taking off rooted shoots, or by cuttings. Seed sown in spring, and the plants pricked out into a bed of rich soil, will flower by July and continue through the season. The impregnation of these kinds, with any, or all of the others, produces a pleasing and interesting variation of flowers.

M. Bifrons.—The flowers of this very pretty species, are large and showy. The flower stem rises about eight inches high. The fine bright yellow blossoms, with one large deep crimson spot are very pretty, they are highly ornamental from April to November. The plant in all respects, requires a treatment as directed for *M. rivalaris* and all its varieties.

M. glutinosa.—This is an old inhabitant of our greenhouses, and is most deservedly so. The plant is shrubby, and of easy culture, producing abundance of buff-yellow flowers. It delights in a rich sandy soil, having the pots well drained. This kind being planted in the open border in spring, becomes a most pleasing object through summer. It requires a warm and sheltered situation, and to be grown in a soil as above stated. Cuttings of this kind readily strike root. I have endeavoured to obtain plants of this kind being impregnated with *M. rivalaris*, and having succeeded in getting seed, I hope next year to be gratified with satisfactory results, by having flowers of the herbaceous kinds upon a shrubby plant.

M. cardinalis.—This is the newest species I possess. I procured a plant in the summer of 1836, which bloomed and produced seed. I sowed it in January, and early in February potted the plants into a rich soil, keeping them in a melon frame, with a moist and brisk heat. I repotted the plants every two or three weeks, up to the end

of May, and when too large for the frame I placed most of them in the greenhouse, where they were kept through the summer. One plant has grown six feet high, and spread proportionably, making a fine show with its blossoms. Other plants were from four to five feet. A rich soil well drained, *plenty* of pot room, and a free supply of water, will furnish plants of the above size.

About the middle of May, I turned out a few of the potted plants into the open border in the flower garden, one reached five feet high, the others very fine. In this situation I gave a free supply of water. The plants in both instances were fine specimens, and very superior to any I have seen elsewhere, and had a most beautiful appearance when in bloom. The largest plant had one hundred and five flowers out at one time. I tried one plant to stand in a pan of water, and the others to be watered in the usual way, but giving a very free supply; and by the latter mode the plants were not only healthier but much larger. I concluded that the continued water in the pot, soured the soil, and thus injured the plant. I have now a number of young plants in small pots, for next year blooming. I judge a cool part of the greenhouse will be suitable to keep them in through winter.

I find that there are two or more kinds by the name *cardinalis*, the one I have, is of a fine deep scarlet red, with the segments of the limb of the corolla quite flat; the other is of a orange outside, scarlet within, and the limb of the corolla bent back; the latter is not near so handsome as the former.

ARTICLE VI.

REMARKS ON RAISING SEEDLING RANUNCULUSES.

BY MR. CARY TYSO, WALLINGFORD, BERKSHIRE.

THE importance of raising Florists flowers from seed, by which new and improved varieties are obtained is becoming increasingly manifest in the superb new sorts of Carnations, Picotees, Pinks, and Dahlias; but the cultivation of Ranunculuses from seed is limited to a very few persons; though new and superior varieties are obtained with equal ease and certainty of success. We grow some thousands every year, and though more than half of them are comparatively worthless, yet generally four or five in a hundred are equal to the best in cultivation, and some of them superior to their far-famed predecessors. It is certain that those who grow only the old sorts cannot successfully compete with those who grow seedlings, as may be proved by reference to the Metropolitan and Royal Berkshire Horticultural

LIST OF BORDER FLOWERS.

Shown. At the latter Exhibition, fifteen out of the twenty-two prizes awarded to this beautiful tribe of flowers were taken by seedlings, and in the collections of hundreds three-fourths were seedlings, although the exhibitors possessed extensive assortments of named varieties. Some growers have even declined the cultivation of old sorts, and continue to grow those from seed only.

The seed should be sown every year in autumn, or *early* in Spring, growers will thereby have the pleasure of seeing a constant succession of new flowers of superior size, shape, and colour, and will obtain a profusion of bloom. In an unfavourable season, some years since, when the old roots did not bloom more than ten in a hundred, even then the seedling beds presented masses of bloom. If persons will only make a trial of seedling Ranunculuses they will find it very amply to repay them.

ARTICLE VII.—ON DESTROYING THE CATERPILLAR.

BY M. S.

HAVING heard much of the difficulty of getting rid of Caterpillars, I thought a statement of how to prevent them might not be unacceptable. This I have for years succeeded in, by placing bags of sulphur on sticks, about 18 inches high, amongst the beds of all the Brassica tribe. On the first appearance of the yellow or spring butterfly, which (the effluvia being offensive to them) prevents their laying their eggs in its vicinity. I have also found the same effect from strewing sulphur over those trees, gooseberries, or any plant subject to them, or the green-fly, on roses, &c. The practice has, in the course of the last 20 years become pretty general, having recommended it to various gardeners and farmers. The cottagers in the neighbourhood make use of matches, with what effect I know not.

Should you think this worthy of insertion in your useful and widely circulating Magazine, I shall feel gratified by having contributed an article to so agreeable a publication.

N. B. A teaspoonful of brimstone inclosed in muslin, not too thick, to prevent the escape of the effluvia, is better than linen or silk.

ARTICLE VIII.

SELECT LIST & DESCRIPTION OF PERENNIAL BORDER FLOWERS.

BY MR. JOHN BROWN,

At Messrs. Buchanan's Nurseries, Camberwell, near London.

It appears from your *Florist's Magazine*, that some correspondents are desirous of a Selection of Hardy Herbaceous Plants. I herewith subjoin the following Select List, trusting it will meet your approba-

tion, and gratify their anxious expectations. I have been particular in selecting the most showy and free flowering Plants. Observe those marked with * are the most New and Rare Species.

All that I have mentioned may be procured at this Establishment, or of Mr. Lowe, at Clapton; Messrs. Dickson, of Chester; or most of the Provincial Nurseries.

Note. The early part of the Spring is decidedly the best time to procure them, as they are less liable to injury from the packing, &c. than at any other season. I have stated the month of blooming, the colour of the flowers, and the heights, so that in planting they can be readily arranged as to height and the colours diversified, according to the individual's pleasure. I will remark as preliminary to the List, that most of the Plants mentioned as flowering in any particular month, will sometimes come into flower the month preceding, and continue in bloom one or more of the following months.

<i>Generic Name. Specific Name</i>	<i>Months</i>	<i>Colour of the Flowers</i>	<i>Height in Ft.</i>
<i>Actea spicata</i>	May	White	3
<i>Aconitum nitidum</i>	July	Blue	3
— <i>grandiflorum</i>	June	Blue	3
— <i>versicolor</i>	Septem.	Bright Yellow	2½
— <i>album</i>	August	White	4
— * <i>Moldavicum</i>	Septem.	Greenish White	4
— <i>pyrenaicum</i>	June	Yellow	4
<i>Achillea</i> * <i>acuminata</i>	August	White	2
— <i>ageratum</i>	Septem.	Yellow	1½
— <i>ptarmica-flore pleno</i>	July	White	1
<i>Alyssum saxatilis</i>	April	Yellow	1
— <i>Olympicum</i>	June	Yellow	1
<i>Anemone pulsatilla</i>	April	Violet	½
— * <i>pennsylvanica</i>	May	White	1
<i>Antirrhinum Majus bicolor</i>	June	Scarlet and White	2
<i>Arabis alpina</i>	March	White and Yellow	1
— <i>lucida variegata</i>	June	White	½
<i>Aster alpinus</i>	May	Purple	½
— <i>Do. flore albo</i>	May	White	½
<i>Astrantia maxima</i>	June	Pink	½
<i>Asphodelus luteus</i>	May	Yellow	3
<i>Aubrietia deltoidea</i>	March	Purple	4
— <i>hesperidiflora</i>	April	Purple	4
<i>Aquilegia</i> * <i>garnieriana</i>	May	Purple and Straw	1½
— * <i>glandulosa</i>	June	White and Blue	1½
— <i>Canadensis</i>	April	Rosy	1
<i>Betonica grandiflora</i>	June	Purple	1½
<i>Braya</i> * <i>alpina</i>	June	Purple	one-eight
<i>Bupthalmum grandiflorum</i>	August	Yellow	1½
<i>Calliopais palmata</i>	May	Yellow	3

LIST OF BORDER FLOWERS.

<i>Generic Name. Specific Name.</i>	<i>Months.</i>	<i>Colour of the Petals.</i>	<i>Height in Ft.</i>
<i>Calliopais rosea</i>	July	Red	2.
<i>Campanula Carpatice</i>	July	Blue	$\frac{1}{2}$
————— <i>*pulla</i>	June	Blue	$\frac{1}{2}$
————— <i>pyramidalis</i>	August	Pale Blue	1
————— <i>*Do. flora albo</i>	August	White	4
————— <i>glomerata flore pleno albo</i>	May	White	1
————— <i>punctata</i>	June	Spotted Do.	1
————— <i>*garganica</i>	July	Blue,	Trailing,
<i>Catananche cœrulea</i>	July	Blue,	2
————— <i>*bicolor</i>	June	Blue and White	$1\frac{1}{2}$
<i>Centrocarrha hirta</i>	September	Yellow	3
<i>Chelone glabra</i>	October	White	2
————— <i>obliqua</i>	September	Purple	3
————— <i>barbata</i>	June	Orange and Scarlet	$3\frac{1}{2}$
————— <i>* speciosum</i>	June	Blush	4
<i>Chrysanthemums of sorts</i>	October	Various	
<i>Chrysocoma dracunculoides</i>	September	Yellow	2
————— <i>villosa</i>	August	Yellow	$1\frac{1}{2}$
<i>Convallaria Majalis</i>	May	White	$\frac{1}{2}$
————— <i>flore-pleno</i>	May	White	$\frac{1}{2}$
<i>Coreopsis verticillata</i>	August	Yellow	3
————— <i>lanceolata</i>	September	Yellow	3
<i>Cortusa Mathioli</i>	April	Red	$\frac{1}{2}$
<i>Coronilla Iberica</i>	July	Yellow,	Trailing
————— <i>varia</i>	August	Pink or Rose	1
————— <i>squamata</i>	August	White	1
<i>Corydalis nobilis</i>	May	Light Yellow	1
<i>Coptis *trifolia</i>	April	Brown	one eight
<i>Cypripedium album</i>	May	White	$1\frac{1}{2}$
————— <i>spectabile</i>	June	Red	$1\frac{1}{2}$
<i>Crackia liliastum</i>	May	White	$1\frac{1}{2}$
<i>Delphinium speciosum</i>	July	Blue	4
————— <i>grandiflorum-flore-pleno</i>	June	Dark Blue	2
————— <i>Do. album do. do.</i>	July	White	2
————— <i>*Barlowii</i>	June	Blue	$1\frac{1}{2}$
<i>Dictamnus *angustifolius</i>	May	Lilac	2
————— <i>Faxinella</i>	June	Red	3
————— <i>albus</i>	May	White	3
<i>Dielyria formosa</i>	June	Flesh	1
————— <i>eximia</i>	July	Flesh	1
<i>Draba ciliaris</i>	February	Yellow	$\frac{1}{2}$
————— <i>asoides</i>	March	Yellow	$\frac{1}{2}$
<i>Dracocephalum speciosum</i>	August	Pink or Rose	2
————— <i>Ruyechianum</i>	June	Blue	1
————— <i>peregrinum</i>	July	Purple	$\frac{1}{2}$
<i>Dodecatheon Meadia</i>	April	Light Purple	1
————— <i>*elegans</i>	May	Rosy	1
————— <i>albiflorum</i>	April	White	1

LIST OF BORDER PLANTS.

277

<i>Generic Name. Specific Name.</i>	<i>Months.</i>	<i>Colour of the Flower.</i>	<i>Height in Ft</i>
<i>Echinacea *intermedia</i>	August	Red	4
<i>Erantlis hyemalis</i>	February	Yellow	1
<i>Erinus alpinus</i>	March	Purple	1
<i>Epimedium alpinum</i>	April		2
<i>Epilobium variegatum</i>	July	Rosy	4
— <i>angustifolium</i>	June	Purple	2
— <i>Dodonsi</i>	August	Purple	1½
<i>Eschscholzia Californica</i>	June	Yellow	1
— <i>*crocea</i>	July	Orange	1
<i>Francoa ramosa</i>	July	White	2
— <i>appendiculata</i>	June	Purple	2
<i>Funkia ovata</i>	May	Blue	1½
— <i>obcordata</i>	August	White	1
<i>Galandia aristata</i>	July	Yellow	2
— <i>Richardsonia</i>	May	Orange	1½
— <i>*picta</i>	June	Red and Yellow	1½
<i>Gentiana septemfida</i>	June	Light Blue	1
— <i>cruciata</i>	July	Dark Blue	1
— <i>Catesbaei</i>	June	Blue	1½
— <i>aurea</i>	August	Yellow	1
— <i>acaulis</i>	March	Blue	1
— <i>verna</i>	April	Purple	1
— <i>Saponaria</i>	September	Blue	1
<i>Geum Chiloense</i>	May	Copper coloured	2
<i>Geranium pratense-flore-pleno</i>	May	Blue	2
<i>Gypsophilla prostrata</i>	June	Red	1
— <i>grandiflora</i>	August	White	1½
<i>Heleborus lividus</i>	February	Purple	1
— <i>niger</i>	January	Pink or Rose	1
<i>Hemerocallis flava</i>	June	Yellow	2
<i>Heimia *salicifolia</i>	September	Yellow	5
<i>Hypoxis erecta</i>	June	Yellow	1
<i>Iberis Tenoreana</i>	June	Pale Purple	1
— <i>stylosa</i>	May	White and Pink	one-sixth
<i>Inula hirta</i>	August	Yellow	1
— <i>odora</i>	June	Yellow	1½
<i>Iris Hookerii</i>	May	Purple	1½
— <i>pumila</i>	May	Purple	1
— <i>Sweetii</i>	April	White	1½
<i>Jasione *humilis</i>	June	Blue	1
— <i>perennis</i>	July	Blue	1
<i>Jeffersonia diphylla</i>	May	White	1
<i>Liatris pumila</i>	August	Purple	1
— <i>elegans</i>	September	Purple	4
— <i>spicata</i>	July	Purple	6
<i>Linum maritimum</i>	July	Yellow	2
— <i>alpinum</i>	June	Blue	1
— — <i>album</i>	June	White	1

LIST OF BORDER FLOWERS.

<i>English Name. Specific Name.</i>	<i>Months.</i>	<i>Colour of the Flowers.</i>	<i>Height in ft.</i>
<i>Linum catharticum</i>	July	Blue	1
<i>Lobelia cardinalis</i>	September	Scarlet	3
— <i>fulgens</i>	August	Scarlet	3
— <i>splendens</i>	August	Scarlet	2½
— <i>*speciosa</i>	June	Blue	3
— <i>amena</i>	July	Blue	2
<i>Lupinus Sabiniensis</i>	May	Yellow	3
— <i>polyphyllus</i>	June	Blue	3½
— — <i>albiflorus</i>	June	White	3
<i>Lychnis *fulgens</i>	June	Scarlet	1½
— <i>Chalcedonica-plena</i>	July	Scarlet	2
— — <i>alba-plena</i>	June	White	2
<i>Lysimachia verticillata</i>	July	Yellow	1
— <i>angustifolia</i>	August	Yellow	1½
— <i>*affinis</i>	July	Yellow	2
— <i>punctata</i>	June	Yellow	1½
<i>Lythrum salicaria</i>	July	Purple	2
<i>Macleaya cordata</i>	May	Red and Yellow	5
<i>Meconopsis cambrica</i>	May	Yellow	1
<i>Melittis grandiflorum</i>	May	White and Yellow	1
— <i>Melissophyllum</i>	June	Flesh	1
<i>Nepeta Violacea</i>	July	Blue	2
<i>Nesaea triflora</i>	August	Blue	2
— <i>verticillata</i>	September	Purple	2
<i>Orobis vernus</i>	March	Purple	1
— <i>Amantius</i>	June	Yellow	1½
— <i>*latifolius</i>	July	Blue	1½
— <i>albus</i>	May	White	1
<i>Oenothera acaulis</i>	August	White	½
— <i>*macrocarpa</i>	June	Yellow	1
— <i>Missouriensis</i>	August	Yellow	1
— <i>*caespitosa</i>	July	White	1
— <i>speciosa major</i>	August	White	1½
— <i>*Taraxifolia</i>	July	White	½
— <i>scrotilia</i>	September	Yellow	2
<i>Ononis *picta</i>	May	Yellow and Purple	1
— <i>rotundifolia</i>	June	Pink or Rose	2
<i>Onosma Echioides</i>	June	Yellow	1
— <i>*Gurelini</i>	May	Straw	1
<i>Papaver bracteata</i>	June	Red	4
— <i>orientale</i>	May	Red	3
— <i>*Nudicaulecoccinea</i>	February	Red and Orange	1
— <i>*croceum</i>	May	Saffron	1
<i>Paschalis glauca</i>	July	Yellow	1½
<i>Petrocallis pyrenaica</i>	May	Pink	½
<i>Pentstemon digitalis</i>	July	White	1½
— <i>stropurpureus</i>	August	Dark Purple	1½
— <i>pulehella</i>	June	Purple	1½

LIST OF BORDER FLOWERS.

273

Generic Name. Specific Name.	Months.	Colour of the Flower.	Height in Ft.
<i>Pentstemon</i> *Cobaea	July	Whitish	3
— elegans	June	Light Purple	1½
<i>Phlox</i> *speciosa	June	Flesh	1
— *vaccina	July	Purple	4
— *tardiflora	August	White	2
— *Wheeleriana	June	Pink	3
— paniculata alba	August	White	3
— suaveolens	July	White	2
— carnea	September	Pink	1½
— * ovata	May	Purple	1
— * reflexa	October	Red	2½
— divaricata	April	Light Blue	1
— amoena	June	Pink or Rose	½
— *Drummondii	(annual) June	Red (changeable)	1
— subulata	April	Flesh	Trailing
— actacea	May	Flesh	½
— *nivalis	April	White	½
— *procumbens	April	Purple	Trailing
— * verna	March	Red	½
<i>Polemonium</i> *pulcherrimum	July	Blue	1
<i>Potentilla</i> formosa	June	Pink	1½
— *splendens	May	Yellow	1
— *Hopwoodiana	June	Brown and Rosy	1½
— *Russelliana	July	Scarlet	2
— O'Buinna	August	Brown and Rosy	1½
— tormentilla		New	Trailing
— verna	March	Yellow	½
<i>Primula</i> cortusoides	May	Red	1
<i>Phyteuma</i> canescens	August	Light Blue	1
<i>Ranonda</i> pyrenaica	May	Purple	1
<i>Rhexia</i> *virginica	June	Purple	1
<i>Rudbeckia</i> purpurea	August	Dark Purple	4
— fulgida	August	Yellow	2½
<i>Ranunculus</i> aconitifolius	May	White	1
<i>Saponaria</i> ozymoides	May	Red	1
<i>Saxifraga</i> nivalis	June	White	1
— oppositifolia	March	Purple	Trailing
— punctata	June	White	1
— granulata-pleno	April	White	1
<i>Simsia</i> amplexicaulis	July	Yellow	4
<i>Schivereckia</i> *podolica	May	White	1
<i>Spigelia</i> Marylandica	July	Scarlet	1
<i>Solidago</i> alpestris	September	Yellow	2
— Canbica	August	Yellow	1
— minuta	July	Yellow	1
<i>Soldanella</i> alpina	April	Purple	1
— montana	May	Purple	1
<i>Statice</i> tartarica	June	Pink	1½

LIST OF BORDER FLOWERS.

Generic Name. Specific Name.	Months.	Colour of the Flowers.	Height in Ft
<i>Statice speciosa</i>	July	White	1 1/2
— <i>latifolia</i>	July	Lilac	1 1/2
<i>Statice arvensis</i>	May	Blue	1/2
<i>Statice *speciosa</i>	August	Lilac	1/2
<i>Telekia *speciosa</i>	July	Yellow	4
<i>Tenorium campanulata</i>	July	White	1
— <i>Canadense</i>	August	Purple	1
<i>Tradescantia *congesta</i>	June	Blue	1 1/2
— <i>Virginica-alba</i>	May	White	1
— <i>rubra</i>	June	Red	1
— <i>caerulea albida</i>	May	Blue and White	1
— <i>plena</i>	September	Purple	1
<i>Trollius europæus</i>	May	Yellow	2
— <i>humilis</i>	June	Yellow	1
— <i>Asiaticus</i>	May	Dark Orange	1
— <i>patulus</i>	May	Orange	1
<i>Thalictrum formosum</i>	May	Purple	3
— <i>medium</i>	June	Green and Yellow	1 1/2
— <i>glaucum</i>	July	Yellow	5
— <i>contortum</i>	June	White	2
<i>Uvularia perfoliata</i>	May	Pale Yellow	1/2
— <i>flavor</i>	June	Yellow	1/2
<i>Verbena *venosa</i>	September	Rosy	2
— <i>Lambertia</i>	July	Lilac	1
— <i>melindrus</i>	May	Scarlet	Trailing
— <i>*Sabin</i>	June	Purple	Trailing
<i>Vesicaria utriculata</i>	May	Light Yellow	1
<i>Viola palmata</i>	May	Purple	1/2
— <i>pedata</i>	June	Blue	1/2
— <i>cornuta</i>	May	Purple	1/2
— <i>attenuata</i>	April	White	1/2
<i>Veronica incana</i>	July	Blue	2
— <i>grandis</i>	August	White	1/2
— <i>elegans</i>	May	Pink or Rose	2
— <i>gentianoides</i>	May	Dark Blue	1
— <i>pumila</i>	May	Blue	one-eight
— <i>pinnata</i>	August	Purple	1
— <i>fruticulosa</i>	July	Flesh	1/2

Hence you may imagine, if those Plants were judiciously arranged in a pleasure-ground, or other compartment appropriated to them, with a Selection of the most preferable Annuals, Shrubby Calceolarias, Nierembergias, Mimuluses, and Pansies, interspersed among, what a most uncommon pleasing appearance they would make for at least nine months in the year. Although it is universally the practice of the present age, more particularly in extensive flower-gardens, to plant the most of Annuals, &c. in large groups

or separate beds, nevertheless I propose a few of the choicest to be introduced, into any suitable vacancies among a collection of Herbaceous Plants in the confined gardens around London, or any other diminutive pleasure-ground: as, from experience, I am induced to observe, that they would to a certain extent be much more attractive, and look infinitely better.

I shall be at any time most happy to subscribe Floricultural knowledge, if you consider my communications worthy of acceptance.

August 25th, 1836.

(We shall be glad to hear from Mr. Brown at all times.—COND.)

ARTICLE IX.—ON THE HEARTSEASE

BY MR. TODD, ROYAL HORTICULTURAL SOCIETY.

HAVING paid considerable attention to the propagation and subsequent culture of the Heartsease, I am induced to send the following observations, upon this interesting and beautiful flowering plant, for insertion in the *Cabinet*, hoping it will be of some interest to its readers.

So strikingly handsome, and attractive are the flowers, and so easy of propagation, generating at a most surprising rate, that I hesitate not to say, that the Heartsease will, ere long, become the pride of every flower garden, from the humble cottage to the splendid palace.

The family of this pretty flowering plant, comprises a vast variety of colours, and form. It is to me quite astonishing that such perfect flowers should have been produced from their progenitors. I could refer to many such by name, but as some of the readers of the *Cabinet* may not know them, I beg to state what are in my opinion the properties of a good flower. Whatever the colours, are they should be clear, and distinct; not blended and suffused together. The flower should be as broad as it is long, and the two upper petals should occupy about one half, and the lower petal be about one quarter, the two side petals exhibiting to *front view* the other quarter. The whole of the petals should join neatly together so as to form a *flat* surface, combining to compose a circle as near as may be, allowing for a small deviation from the circumference line at the places where the petals meet, and the incurvature of the lower edge of the bottom petal. The merits of the flower are judged by its perfection of form in the above respects, and not to size, a large wavy edged, or wavy surfaced flower, would be far inferior to a small one possessing the

properties above described. On no account should size be substituted for form in estimating the merits of flower. The mode of treatment I pursue is simple but very successful.

Early in May I take off the small suckers that are appearing above ground, of which there is usually a free supply from the old plants. I cut them off close to the old plant, at a joint; I then pot them off in sand, about an inch of each being inserted therein. I water them well at that time to settle the soil close to the stems, and in an hour afterwards I cover them closely with a hand glass which is not removed from off them, till they are rooted, this is easily ascertained by the tops pushing.

I take care to shade them on sunny days. When rooted I take them up and transplant them into a nursery bed, in a warm situation, there they remain till about the middle of July, at which time I put them out, with as much earth adhering to the roots as possible, into the places where they are intended to bloom, which they will do all the end of summer and autumn, and flourish exceedingly fine the following spring.

When the plants have grown very vigorously and the shoots are long, I cut them down rather closely, after which they soon recover. By this mode of treatment they very far exceed anything I ever saw of Heartsease elsewhere:

I never keep plants beyond the second year, as they get too bushy, and the flowers are small, compared with those the year old plants produced. The soil I bloom them in is as follows:—Two parts loam, one part sandy peat, and the other well rotted hotbed dung; these are well blended together.

Those plants I intend to grow for producing flowers for exhibition, I plant in a half *shady* situation, the colours are thus preserved pure and clear.

ARTICLE X.—ON THE CULTURE OF THE HYACINTHS.

BY J. R. W. WELLINGTON, SOMERSETSHIRE.

THERE are so many accounts written on the culture of the Hyacinth, that I fear you will consider mine superfluous, but as the manner in which I force my Hyacinths is different from any that I have seen published, perhaps you will give it a place in your useful and valuable publication.

Almost all growers of Hyacinths imagine that they are brought to greater perfection by growing them in a sandy soil; but the following course which I have adopted and the success I have met with leads me to think mine the best plan.

I take two sixths parts of well rotted cow-dung, at least two years old, to which I add two sixths parts of fine soft sand, and the remainder with rotted leaves, all of which I have well chopped up but not sifted. I plant them in narrow deep pots filled with the above composition, allowing the bulb to be about half buried in the mould. When I have potted off the number I intend to force, I take a common cucumber frame, put it on a level surface on the ground, into which I place the Hyacinths, filling the frame with saw-dust. If I cannot part with a frame, I dig a pit sufficiently large to contain the number I intend to force, about eighteen inches or two feet deep, making it perfectly level, into which I place the Hyacinths and fill it up in the same manner with the saw-dust. I then form a ridge, with the earth taken out of the pit, on the top. I always pot my Hyacinths for forcing the last week in September or early in October. When Hyacinths are required to be in flower at Christmas they should be taken out of the pit in November. I prefer letting them remain until the latter part of January or beginning of February, by which time they will have filled the pots with roots, and made flower stems six or eight inches in the saw-dust. When taken out of the saw-dust they are completely blanched. I then place them in a cold frame with plenty of light; after remaining there for two or three days, I give them a little air by lifting the light at the back, and when they get their proper green colour, which they will in the course of a week, I place them in the plant stove where I plunge them about one third of the depth of the pot in the bark bed, letting them have all the air and light I possibly can.

By this treatment I have had remarkably fine Hyacinths.

ARTICLE XI.

REMARKS ON THE REVERSA ELEGANS ROSE, AS SUITED FOR A TRELLIS OR AS A PILLAR ROSE.

BY MR. ARCHIBALD GODWIN, COLLYCROFT, NEAR ASHBOURNE.

As much interest of late has been taken in that truly interesting and all lovely flower, the Rose, I beg to forward a few remarks which may be of some little service to the readers of your valuable Magazine. Amongst pillars of Roses, there is scarce one that can equal, if any can surpass, a Rose I have cultivated for about four years, called the *reversa elegans*. I had two small plants of it accidentally sent to me in a quantity of the variety *Noisette purpurea*, which I planted in a strong loam in the month of November, not neglecting to incorporate with the soil, a good quantity of half decom-

poor hotbed dung; each of them obtained the height of twelve or fifteen feet the following summer, and the succeeding summer exhibited two pyramids of roses for the space of three months, and formed two of the most conspicuous and splendid objects I ever saw, and elicited universal admiration from all who saw them. Its habit is a good deal like that of the Noisette, flowering in clusters, of ten to twenty-seven, and in vast profusion. The colour is a vivid purplish crimson, with a white stripe up each petal. It is well adapted for a trellis; and as a standard, has a most striking effect, when the umbrella form of training is adopted, particularly when on a good high stock, resembling a complete creeper, covered with the Roses to the ground. Hence its adaption for planting in the centre of circular rosery, on a stem five or six feet in height, trained to the surface of the soil. This plan may be adopted with the Double White Musk, which is rather shy in flowering freely in some situations; but this system of training will have the desired effect. By bending down the shoot as above, it checks the superabundant flow of the sap, and produces an abundance of bloom. If you deem these few practical observations worthy of insertion in your interesting work, they are, of course, at your service.

ARTICLE XII - ON GROWING THE BRUGMANSIA SUAVEOLENS,
(DAUTRA ARBOREA,) IN THE OPEN AIR

BY MR JAMES BROWN, GARDENER, KIRK LODGE, HANTS

DURING the last two seasons I have bloomed the Brugmansia Suaveolens in the open air, and the mode of treatment I pursue I here subjoin, hoping that it will be of service to the readers of the *Cabinet*.

Early in the spring of 1834, I took off a number of cuttings, and struck them into a melon frame. When rooted I pot six off into twenty-four sized pots, using a rich soil, the plants being placed in the greenhouse during the year. I repot them into a size larger early in August. I keep the plants in the greenhouse till the middle of May 1835, and then turn them out into the border, with balls entire, the situation being open to the sun and sheltered from the west and north. The soil of the border is taken out to the extent of a circle four feet diameter, and half a yard deep, the space is filled up again with the soil and an equal portion of well rotted hotbed dung nearly a year old.

When each of the plants were put out into the border, they were well watered, which was repeated very frequently during the whole season.

The plants soon began to grow surprisingly. On the twentieth of June I took the blade of an old scythe and cut round the ball of roots, about two inches from the old ball, and to the depth of the soil. I repeated this operation, at two inches from where it was last cut, on the eighteenth of July. The check which the plant received by this cutting in of the roots, caused the shoots to produce blossoms, a profusion of which I had from an early part of August to the end of October. The six plants were put out, three on each side a walk, and they had a most beautiful appearance.

I took up the plants the first week in November, repotted them, and kept them in the greenhouse during winter. About the middle of May this year, I planted them out again, and treated them in every respect as before stated. The plants have been a complete picture of beauty, and are likely to continue so to the end of the season. Next spring I purpose raising young plants, the large ones becoming too big for a greenhouse in winter. I had not an opportunity of obtaining a supply of manure water, but I think if I had that to have given the plant occasionally after the blossoms had begun to show, it would have increased the length of the shoots, and of course increased the number as well as the size of the flowers. I can assure the readers of the *Cabinet*, that the experiment will amply repay for the trouble.

ARTICLE XIII.—A DESCRIPTION OF THIRTY OF THE BEST KINDS OF MOSS ROSES

BY THE REV. J. JONES, A. M., BRISTOW RECTORY

THE annexed list and description of moss Roses, are such as I have selected and taken remarks upon this season, and which I can confidently recommend to the readers of the *Cabinet*. I have planted a bed of them, and I expect next season a delightful show of bloom; the plants are strong, and I hope will answer my expectations; I have put a basket full of litter manure round the stem of each, which I have found of essential service with all the moss Roses; it keeps the soil cool in summer, and causes the plants to bloom profusely and vigorously. I always put the manure over early in November, and then throws a slight covering of earth over the whole, in order to prevent its removal, which causes it to decompose, and conceal the unsightliness of it.

I have my bed raised a foot above the surrounding ground, which keeps the plants from injury in wet and frosty winters; yet it is not too dry, when the manure is placed, for any dry summer.

ON PROTECTING PLANTS.

I think all the tribe of moss roses are beautiful, but especially the selection I have made; the kinds are very distinct. The *Rose de Luxembourg* is a very luxuriant grower, and of a fine dark crimson colour.

<i>A Fleurs Poncee</i>	striped curious purple	rosy long buds and very double
Blush	pale blush	globular and very double
Crimson, or Damask	light crimson	expanded and double
Crimson, or E'carlate of the French	very bright rosy	globular, large and very dbl.
Common	rose	globular, large and very dbl.
Crest, or Crested Provence	rose	globular, very large and dbl. with fine crested buds.
Damask	fine crimson	large double, globular
De Vieillard	delicate rose	globular and very double
Eclatante	brilliant rose	cupped and double
Gracilis		
Lancel	very deep red	large and double
Mottled	rose, mottled	globular and double
Mousseuse partout, or Zor	rose	globular and double the plant covered with moss
Miniature (Rivers's)	bright crimson	cupped, very small, semi-dbl.
New Crimson	beautiful crimson	large and double
Prolific	rose	globular dbl, abundant bloomer
Pompone, or De Meaux	pale blush	compact, small, and very dbl.
Perpetual White	white, often striped with pink	blooming in clusters, and some times in the autumn
Peacock's Mottled Blush	blush, pretty blush	globular and large double
Pourpre Clair	splendid red	globular and double
Rouge de Luxembourg, or Ferrugineuse	deep red with purple tinge	cupped and double, splendid
Scarlot, or De la Fleche	carmine	cupped, small and double
Spotted	carmine with pale spots	expanded, semi double
Striped	pale with red stripes	cupped, and partially mossed
Sage-leaved	bright rose	cupped and very double
Single Rose	bright rose	expanded and large
Single Lilac	lilac rose	expanded
Single (Rivers's)	rose	globular and distinct
Single (Crimson (Rivers's)	dark purplish crimson	cupped, large and very mossy
White Hath, or Clifton White	pure white	globular and dbl., very mossy
White (Old)	very pale flesh	globular and very double, but partially mossed

ARTICLE XIV.

ON PROTECTING TENDER PLANTS DURING WINTER

BY MR. JAMES FERGUSON, GARDNER, NETTERBY LODGE, GLASGOW.

THE winter season is now approaching, when it will be found necessary to protect many of the beautiful flowering tender plants. I forward for insertion in the November *Cabinet*, (the article was received too late) the methods I have adopted for the last six years, with complete success; very little trouble is incurred in the attention required, as well as being much neater than any method I have seen in use elsewhere.

For tender shrubs, as Standard Fuchsias, *Rhododendron arboreum*,

See, *Emallonia*, *Camellia*, *Salvia*, *Mesembryanthemum*, &c., I make frames in the following manner:—I take four strong stakes, strong hazel rods, I have them inserted in the ground at equal distances round the plant, so as to clear the ends of the shoots; then I unite the tops together to one point, securing them there. I then cut, by means of a fine toothed saw, some notches up the two sides of the rod, which are outwards; having done this, I have a quantity of deal laths, which are about an inch and a half broad, these are then nailed to crosswise, in doing which, I commence at the bottom, and, having fastened the first tier, I then place another above that, and so proceed to the top. In nailing the laths, I place them in the notched part of the uprights, so that they overhang each other a quarter of an inch, but not to have the lower edge of the lath above, to touch the upper edge of the lath below it; I allow a space here of a quarter of an inch—this is easily effected by the notches being cut for the purpose. The openings at the overlaps admit air and light to the plant, but at the same time exclude wet from it. Both these advantages are of importance in order to obtain the object desired. With a few very tender kinds of plants, I have strewed in, previous to putting the case over, some dry fern leaves, commonly called brake or braken, among the branches, and I have found this to keep perfectly dry through winter, answering every desired end. Where brake is not to be had, branches of beech, with the leaves upon them, furze or bloom may be used to answer the same purpose. I always cover the ground over the roots, to the extent of two or three feet, according to the size of the plant, and about six inches deep with chaff from the corn-mill. This keeps dry under the covering, and preserves the roots better than any other material I ever used, such as bark, sawdust, &c.

The framing of laths, &c., I have painted, and though I have used them for six winters, they are as good as when new. I take off the frame from the plants, when I judge the severe weather is over, usually about the middle of April.

The above kind of covering is very far preferable to that of thatching over with straw, which keeps the plants dark, and the straw often becomes mouldy, and kills the plants. I made a few coverings of wicker work, common willow twigs, but these did not answer, the wet dripping through the covering, and being thus kept damp inside, more damage was done than if left exposed to the open air.

For smaller plants I made coverings of the lath frame work suited to their size. With such covering I have preserved strong plants of *Maurandia dophospermum*, &c, without sustaining any injury.

To preserve tender kinds of herbaceous border flowers, as *Verbena Melindres*, *Lobelia fulgens*, &c., I had a number of covers made similar to dish covers, only at the edges I had four legs made to hold them a little way above the plant, and to fix them firmly in the ground, so as not to be removed. These were made of clay, similar to that used for garden pots. They shoot off the wet, keep the root dry, and yet allow a circulation of air underneath. Previous to placing the pot, I lay a small portion of light leaf mould, or something of that nature around the crown of the plant; these pots look very neat, and answer fully. I use the same covers in autumn for blanching endive for salad. They are very cheap, having purchased two hundred for one pound.

ARTICLE XV.—ON BLEACHING LEAVES, &c.

BY H. D

I forward the inclosed for insertion in the *Cabinet*, in answer to the query of "A Practical Lady Gardener," on bleaching the skeletons of leaves.

The skeletons of leaves and other delicate vegetable fibres, may be perfectly and safely bleached, by means of a very dilute solution of chloride of lime, in the following manner :

A table-spoonful of the solution, as commonly sold at druggists' shops, may be added to a quart of distilled or pure spring water, and the fibre soaked therein for three or four hours, or until the colour disappears; it is then to be taken out, well washed and soaked in a large quantity of pure water, to remove any adherent chloride, and afterwards dried, with free exposure to light and air.

It is sometimes, although rarely, necessary to repeat the process twice or thrice.

Another good method, but much slower, is to lay the substance on a clean cloth in the open air, exposed to the sun, and frequently to sprinkle with clean soft water.

London, June, 26th, 1836.

PART II.

LIST OF NEW AND RARE PLANTS.

Noticed since our last.

1. *ASPASIA VARIEGATA*, Variegated flowered. (Bot. Reg., 1907.) Natural Order, Orchidaceæ; Class, Gynandria; Order, Monandria. This very neat and pretty flowering species has bloomed for the first season in this country, in the collections of R. Bateman, Esq., and of Mr. Knight, King's Road, Chelsea, during the present year. It is an inhabitant of the tropical part of South America, in its native state. The plant is of easy culture. The petals are yellow at the edges, and green up the middle, streaked and spotted with red; the labellum is white spotted and streaked with violet. Each flower is upwards of two inches across; the flowers are delightfully fragrant in the morning. The plant merits a place in every collection of Orchideous plants; being of easy culture, it is probable it may soon be procured at a low cost. *Aspasia*, from *aspasmos*, I embrace, alluding to the column embracing the labellum.

2. *AMARYLLIS PSITTACINA*, HYBRIDA. Hybrid variety of the Parrot Amaryllis. (Bot. Mag., 3528.) This splendid variety was raised in the hothouse of William Griffin, Esq., South Lambeth, London, it is an hybrid between *A. Johnsonia* and *A. psittacina*. It has bloomed in the stove at the Glasgow Botanic Garden. The flowers are very splendid, usually four flowers are produced in a scape. Each flower is near six inches across. The petals are white, with a small portion of green at the lower part, the edges and tips have a broad portion of fine crimson, and numerous crimson stripes run up the petals; altogether it is a most beautiful flowering variety, well meriting a place in every stove.

3. *BEGONIA FISCHERI*. Dr. Fischer's. (Bot. Mag., 3332.) Begoniaceæ; Monœcia; Polyandria. This pretty plant was sent from Berlin in 1835, to the Edinburgh Botanic Garden, where it bloomed in the spring of the present year. The flowers are of little interest. The foliage is smooth, when young of a bright red, at the under side, paler at the veins, and a pretty pink above, having too a peculiar silvery lustre, which remains upon the old leaves, which at that stage are of a yellowish green on the upper side, and of a more pale red at the under side. It is a very neat plant, and well deserves a place in the stove; like the other species it is of easy culture.

4. *BARTONIA AUREA*, Golden flowered. (Brit. Flow. Gard., 357.) Loasææ; Polyandria; Monogynia. A very pretty flowering annual; the flower stem rising a foot high. The plant produces a profusion of showy flowers, of a fine golden yellow colour. Each blossom is about two inches and a half across. The plant is a native of California, from whence it was sent by Mr. Douglas to the London Horticultural Society, in whose garden it recently bloomed. It delights in a sheltered and sunny situation, and is to be grown in a rich soil, where it will bloom profusely. The plant requires to be raised as a frame annual, and to be planted into the border in May.

5. *CLINTONIA PULCHRELLA*, Pretty Clintonia. (Bot. Reg., 1909.) Lobeliaceæ; Syngenesia; Monogamia. A native of California, from whence it was sent by Mr. Douglas to the London Horticultural Society. It is a pretty flowering tender annual, of very humble growth, only rising a few inches high. The flowers are rather larger than *Clintonia elegans*, blue, with a broad white spot at the centre, stained with a rich yellow. The flower is about half an inch across. Its delicacy of growth will prevent its spreading rapidly through the country.

6. *CYTODORIUM WILLMOREI*, Mr. Willmore's. (Birmingham Bot. Gardens, p. 4.) Orchidaceæ; Gynandria; Monandria. The plant was discovered by Mr. Henchman, in the valley of Cumanao, in the republic of Venezuela. The species is of terrestrial habit, growing among decayed vegetables. The leaves of the plant grow more than six feet long in its native habit. The species has bloomed in the very superb collection of John Willmore, Esq., Oldford, near Birmingham, having a flower stem four feet six inches high, very much branched, producing a panicle

of diameters flowers, each flower being above two inches across. The sepals and petals are of a yellowish green, spotted with dull red; the lateral petals are higher in colour, but not so much marked as the sepals; lateral lobes of the lip of a pale red; the intermediate lobe yellow, having the edge spotted with red. A very handsome flowering species, deserving a place in every collection. *Cyrtopodium*, from *Kurios*, convex; and *pous*, a foot; in reference to the convex claw of the labellum.

7. *CRASPEDIA GLAUCA*. (Bot. Reg., 1908.) Compositae; Syngenesia; Polygamia aequalis. Mr. James Backhouse, of the firm of Messrs. Backhouses, Nurserymen, York, went to Van Diemen's Land a few years since, and from thence he has sent the present plant to the York Nursery. It is a perennial herbaceous plant, growing upwards of a foot high. The flowers are globular shaped heads more than an inch in diameter, of a yellow colour. Each of these heads is composed of smaller heads, producing a pretty effect. *Craspedia* from *Kraspedon*, a flange; referring to the feathery pappus.

8. *CRATEGUS MEXICANA*, Mexican Hawthorn. (Bot. Reg., 1910.) Another pretty species of Hawthorn, which is a native of the Tierra fria of Mexico. It is a small growing tree, with dark green shining leaves. In warm countries it is an evergreen. The flowers are white, each corymb having a considerable number. They are succeeded by large yellow fruit, each fruit is the size of a May Duke Cherry. Both the blossoms and fruit make a pretty appearance among the bright green foliage. *Crataegus* from *Kratos*, strength; referring to the wood.

9. *EPIDENDRUM MACROPHYLUM*, Large lipped. (Bot. Mag., 3534.) Orchidaceae; Gynandria; Monandria. A very handsome flowering orchideous plant, a native of Mexico, from whence it was introduced by Charles Horsfall, Esq., Everton, near Liverpool. In the rich collection of Mr. Horsfall's Orchids, it bloomed during the last summer. The scape rises about a foot high, terminated with a raceme of four large handsome flowers, without scent. The flowers are, sepals and side petals, of a greenish brown colour; lip, white, when old cream coloured, having a large red purple spot at the base. Each flower is near three inches across. The flowers are singularly pretty. *Epidendrum* from *Epi*, upon *dendron*, a tree; native habitation of the plant.

10. *EPIMEDIUM MACRANTHUM*, Large flowered. Berberaceae; Tetrandria; Monogynia. (Bot. Reg., 1906.) A native of Japan, which has flowered in the garden of the University of Ghent. The flowers are very singular in form, more than an inch across, of a pale violet colour, which are very fragrant. The plant is quite hardy; it is grown in the nursery of Mr. Osborne, Fulham. *Epimedium* from *Media*, where the plant to which it belonged, was said to grow. There are two more species in the garden at Ghent, viz., *E. violaceum*, and *E. Muschianum*.

11. *IBERIS CORONARIA*, Rocket Candy Tuft. (Brit. Flow. Gard.) Crucifera; Tetradymia; Siliculosa. This hardy annual is of considerable beauty, being very showy, and of a pure white. The clusters of racemes are numerous, and very large, being three or four inches long, at a distance the fine flowers very much resemble the Double White Rocket. It blooms for several months during summer. It well deserves a place in every flower garden. Seeds of it are to be obtained of most of the London Seedsmen, as Charlwood, Kerman, Warner, Carter, Flanagan, Chubb, &c.

12. *IONOPSIS TENERA*, Delicate flowered. (Bot. Reg., 1904.) Orchidaceae; Gynandria; Monandria. A native of Havannah, from whence it was brought by Captain Sutton, in 1835, and by that gentleman presented to Sir Charles Lemon, Bart., in whose collection it has bloomed. The scape rises about eight or ten inches high, bearing a loose panicle of delicately marked flowers, which are of a pale pinkish-white, beautifully marked with bright violet coloured veins. But little is known in this country of the plant of this genus; it is rare to find them in collections of orchids, by reason of the difficulty of preserving them on their journey in the ship, and even when they are safely imported, they are difficult to cultivate, and are soon lost. They are natives of the woods, and there grow upon the smaller branches of the trees, or upon dead branches, which their delicate white roots soon overspread. There appears to be four species known of this genus, viz., *I. tenera*, *I. utricularoides*, *I. pallidiflora*, *I. paniculata*; the flowers of the latter species are of a snowy whiteness. It was discovered in the ancient forests of Brazil. *Ionopsis*, from *ion*, a violet; and *opsis*, look; meaning violet faced.

13. *CRISTATUM CAIRO-COLOREM*, Figgy Oncidium. (Bot. Reg., 1811.) Orchidaceae; Gynandria; Monandria. A very curious species, the foliage being scarcely an inch and a half long, and the flower stem little more than two inches high. The flowers are very neat and pretty; yellow, streaked with red; each flower is about three parts of an inch across. It has bloomed profusely under the skilful management of our friend Mr. Cooper, at Wentworth House Gardens. It is a native of Mexico, and in its native habit, is found to grow exclusively upon the branches of Orange and Lemon trees, and constantly prefers a dry situation, and to be exposed to the sun.

14. *ONOBRYCHES RADIATA*, Radiated. (Birm. Bot. Gard., 3.) Leguminosae; Diadelphia; Decandria; Synonym, *Hedysarum Buxbaumii*. The plant is a native of Caucasus. It is perfectly hardy, growing two feet high. It is a perennial plant. In its native situation it inhabits hilly parts of rocky districts. The flowers are produced on cylindrical spikes, they are of a pale yellow colour; the standard is also marked with red lines, and has a yellow spot. The plant has recently bloomed in the Birmingham Botanic Garden. It was raised there from seed presented by John Hunneman, Esq., in 1811. It delights in a light and dry soil. *Onobrychis*, from *onos*, an ass, *brycho*, to gnaw; alluding to cattle being fond of this tribe of plants.

15. *PHACELIA TANACETIFOLIA*, Tansy leaved. (Brit. Flow. Gard.) Hydnophylles; Pentandria; Monogynia. An half hardy annual, a native of California, sent from thence by Mr. Douglas. The flower stems rise about a foot high, terminated with cymose racemes of flowers, the limb of pale purple colour, the tube white. When first coming into bloom it is pretty, but it does not bloom more than five or six weeks.

16. *RONDELETIA ODORATA*, Sweet scented. (Bot. Reg., 1706.) Synonyms, *R. coccinea*, *R. speciosa*; Cinchonacea; Hexandria; Monogynia. The plant is a native of Havannah, growing upon the bushy covered rocks near the sea, and it has occasionally been observed to grow upon the naked rock itself. It is a pretty hothouse shrub, growing several feet high; the shoots terminating (each) with three corymbose panicles of flowers—they are of a bright vermilion colour, and violet scented. The plant usually blooms at the end of summer. It is a very pretty flowering plant. *Rondeletia*, so named by Plumier, in compliment to G. Rondelet, a Physician.

17. *TURNERA ELEGANS*, Elegant flowered. (Birm. Bot. Gard., 2.) Turneraceae; Pentandria; Trigynia. The plant is a native of South America, and the West Indies; it was introduced a few years ago, but is not generally cultivated, as yet, in our stoves. It is a slender evergreen shrub, growing about a yard high. The petals are of a pale yellow, or sulphur colour, beautifully shaded with deep orange near the centre: on a purple brown spot, near the base. Each flower is near two inches across. *Turnera*, so named by Plumier, in memory of William Turner, M. D.

18. *VESTICARIA GRACILIS*, Slender stemmed. (Bot. Mag., 3533.) Cruciferae; Tetradynamia; Siliculosa. A native of Texas, where it was found by Mr. Drummond. It is an annual plant, the stems rising about nine inches high. The flowers are of a bright yellow, produced on axillary and terminal racemes, several inches long; it continues in bloom nearly all summer; each flower is near half an inch across. It is a suitable plant for ornamenting rock work.

PART III

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON AURICULAS.—Will you in your notices to correspondents, be kind enough to tell me where and at what price I can get the following Auriculas:—Leigh's Colonel Taylor, Oliver's Lovely Ann, Taylor's Glory, Whittaker's True Blue,—or perhaps some of your correspondents could give the necessary information if this were made public?
Loto's.

Bridlington,

"R. T. W." will feel obliged to any correspondent of the *Cabinet*, by a solution of the following question:—by what principle in nature are flowers impregnated with aroma?

BRIGHTON ATHENÆUM.—Is the Athenæum at Brighton rebuilt, or rebuilding? I have not heard anything of it since its fall. If some Brighton reader of the *Cabinet* will give me a reply, I shall be obliged.
J. K.

ON TREATMENT OF ALPINE PLANTS DURING WINTER.—If any of your correspondents will inform me what is the best method of treating Alpine plants during the winter, in this country, it will much oblige
TROPÆCUM.

It will much oblige a subscriber to the *Cabinet*, if he can have any information respecting a Botanical Society, which is said to be forming in London.
C. F. P.

ON BILLARDIERA MELOCARPA.—Can you, or any of your correspondents, give me some information on the treatment of the *Billardiera Melocarpa*? I have now trained it against a wall, fronting south-west, which is much exposed to wind. It was bought this summer, and immediately planted out, but I do not think that it has flourished well. Should it be taken in for the winter, or will it do only matted up? I should be much obliged by an early answer, in time to provide for the winter.
KALMIA.

November 7th, 1836.

(We are not at all acquainted with the species here named, but if it be from the same country as the other species, we should think it would do well covered with matting, as noticed. As far north as Yorkshire, we have found some of the species to endure the winter without any covering, and not to be injured in the least. We think that a slight covering of matting, short hay, or moss placed over the branches, and that covered by a piece of thin oiled canvass, would be the best protection; the latter prevents the interior covering from becoming wet, which is of importance in order to preserve the branches. When the inner covering, whether matting or what else is used, is allowed to get wet, it retains that, and the shoots become mouldy and perish. The canvass covering prevents such injury, and is very cheap.—The yellowish coloured canvass is the best for the purpose, looking neater. We have found the *Billandieras* to flourish very well in a soil well drained at the bottom, and composed of equal parts of good rich loam and sandy peat.—CONDUCTOR.)

ANSWERS.

WIRE-WORM.—I beg to refer your correspondent, who has twice solicited information on the most effectual method of destroying the *Wire-worm*, to the second Vol. page 118, of your extremely useful and well conducted periodical. I have tried S.H.'s method, which is precisely the same as that recommended by Sir J. Banks, and pronounce it to be effectual, but very troublesome. *Rape-cake* in powder, has been used by Lord Albermarle, as we find by the *Horticultural Register*, at page 649. Mr. Poynter, however, says, that *Cow-urine* is immediate destruction to *Wire-worms*; it will also destroy grubs and moos upon trees, and

give a luxuriance both to trees and young crops; but it must be administered to trees during a frost, to young crops during the Spring, and must be poured near them but not upon them—the soil having been first a little stirred.

R. T. W. T.

ON A YELLOW FLOWERING PLANT &c.—Several of your correspondents have made enquiries respecting a yellow flowering plant, for a bed, to contrast with other colours. I beg to inform them that there is no plant with yellow flowers, more suitable for a bed, than the *Sanvitalia procumbens*, which grows about six inches in height, and continues in bloom from June till the frost kills it. It is beautiful when in full bloom; its pretty dark yellow flowers rising one above the other, so as to conceal nearly the foliage from the eye. The *Leptosiphon densiflorus*, and *androsaceus* form a neat appearance when planted in beds, and masses, one having white, and the other rose coloured flowers.

ON A LIST OF ANNUALS.—A correspondent, "Pedro," page 260, wishes for a list of hardy Annuals, and the time of sowing. By referring to almost any of the volumes of the *Cabinet*, he will soon find out what time to sow, &c. The following is a list of the most beautiful and showy sorts in cultivation, and will bloom freely in the open bed or border. If those kinds marked with two asterisks, be forwarded by being raised in a pot in a room or frame, and afterwards planted out, it would contribute to having the kinds more early in bloom. All the kinds may be procured of the London seedsmen as Charlwood, Kernan, Warner, or Carter, &c.

<i>Antirrhinum glandulosum</i>	<i>Lupinus subcarinomis</i>
* <i>Anchusa versicolor</i>	———— <i>elegans</i>
* <i>Campanula Loreyi</i>	* ——— <i>nanus</i>
* <i>Coreopsis coronaria</i>	* <i>Heliophylla arabioides</i>
* ——— <i>diversifolia</i>	* <i>Leptosiphon densiflorus</i>
* ——— <i>filifolia</i>	* ——— <i>androsaceus</i>
———— <i>tinctoria atropurpurea</i>	<i>Malope grandiflora</i>
<i>Calliopsis bicolor</i>	———— <i>alba</i>
** <i>Calandrinia grandiflora</i>	** <i>Nemophila insignis</i>
** ——— <i>discolor</i>	** ——— <i>grandiflora</i>
<i>Clarkia pulchella</i>	<i>Nolana paradoxa</i>
———— <i>alba</i>	* ——— <i>atriplicifolia</i>
———— <i>grandiflora</i>	* <i>Oenothera humifusa</i>
* <i>Collinsia bicolor</i>	———— <i>rosea-alba</i>
* <i>Eutoca multiflora</i>	** <i>Phlox Drummondii</i>
* ——— <i>viscida</i>	* <i>Phacelia congesta</i>
* ——— <i>Menziesii</i>	** <i>Sphaenogyne speciosa</i>
<i>Goodetia rubicunda</i>	* <i>Sanvitalia procumbens</i>
* <i>Gilia tricolor</i>	<i>Schizanthus diffusus</i>
* ——— <i>alba</i>	———— <i>humilis</i>
———— <i>achillaeifolia</i>	———— <i>Grahami</i>
* ——— <i>coronopifolia</i>	———— <i>pinnatus</i>
* ——— <i>tenuiflora</i>	<i>Zega leptantha</i>
* <i>Kaulfussia amelloides</i>	** <i>Zinnia elegans</i> and its varieties.
<i>Lasthenia Californica</i>	

The above list of hardy Annuals contains none but showy kinds. Those marked thus *, will look best when grown in a bed of a sort, upon a grass plat. I shall shortly send you an article on the subject of sowing annuals in beds, &c.

Wills, November, 1836.

J. K.

In reply to "James Figgans" request, in Number XLV, I have to observe, that the plainest and most simple rule which can be applied to the table he has proposed, on that containing any number of competitors in any number of classes, is the following:—In the table, are four competitors, therefore, the numerical value of the prizes, will be four, three, two, one; consequently, he who obtains a first prize, will reckon four, a second prize three, a third prize two, and a fourth prize one; therefore, B reckoning eleven, will be the first; A, counting eight, will be the second; C's number being seven, will be the third; and D's four, the fourth. This mode of calculating, holds good in any number of classes, and any number of

MISCELLANEOUS INTELLIGENCE.

competitors, thus:—Seven classes of Roses competed for by seven parties.

	Crimson	Yellow	La. Blush	Striped	Dark	White	Dr. Blush	
A	1	7	8	7	3	4	2	22
B	4	1	1	4	5	6	3	22
C	2	4	3	1	6	1	7	32
D	7	5	4	2	4	5	1	29
E	8	2	5	6	1	7	4	25
F	3	3	7	5	7	2	5	24
G	5	6	2	3	2	3	6	29

This table shews, that B and C being equal, are entitled to have the first and second prize divided between them, A the third, &c.,

Now for a further proof of the correctness of this mode of calculation:—Suppose that the four competitors in "James Figgans" table, were to have four prizes in each class, and that the prizes were to be 2s., 1s. 6d., 1s., and 6d. in each.—B would obtain 6s. 6d., A 4s., C 3s. 6d., and D 2s., which in sixpences, would be as 11, 8, 7, and 4, before given in the solution. Hoping this will satisfy your correspondent and his friends, I remain

AN OLD FLORICULTURAL FRIEND.

Sheffield, Nov. 14th, 1836.

REMARKS.

THE POINSETTIA PULCHERRIMA.—*P. pulcherrima* is fully deserving the most earnest attention and careful management, in order that it may be so grown as to produce its flowers as perfect in our stoves as those grown at Philadelphia, where, it is stated, the beautiful scarlet whorls of bractee which terminate the branches measure as much as twenty inches across, and are equal in colour to the finest tints of *Rosa Sinensis*.

It is decidedly a splendid feature among our ornamental plants, and, from its habit, we feel confident it may be cultivated with the application of the common treatment given to stove-plants. (At Mr. Bunneys, Nurseryman, Kingsland Road we saw it fine there.) It is kept in rather a close atmosphere in the stove, along with other tender plants, all of which are now and then syringed over when the weather is fine, in order to prevent the attacks of insects or the accumulation of filth. In the day, if fine, a free circulation of air is kept up; and at night the temperature of the house averages from 65 to 70 degrees. The soil used, and which seems to suit well, is very sandy loam; in potting, care is taken to ensure a good drainage, and as soon as the roots reach the inside surface of the pot, an additional shift is immediately given, so that the growth is never checked and the plant in consequence is kept continually progressing. It requires a great supply of water at the roots.

ON NEW OR HANDSOME FLOWERING PLANTS.—During the last summer we have taken two tours, and visited many of the principal gardens in the country, as well as nursery establishments, with the intention of seeing what new plants were deserving of recommendation to our readers. The following list contains a portion of what we saw, and all of which are showy and interesting. We shall give an additional list of such, in subsequent numbers of the *Cabinet*. We intend to take two or more journeys every year, for the same purpose. We have also engaged a person in London, to visit, every month, the nursery establishments there, and to furnish us with a list of whatever is new, showy, and interesting; the lists will appear from time to time.

Euddlen madagascariensis.—A greenhouse species of great beauty, and blooming for a considerable season, well deserving a place in every collection.

Bignonia jasminoides.—A noble looking plant, with large dark green leaves, and fine trusses of flowers. It is well worthy a place in every greenhouse. It is probable that it would bear the open air like the other species.

Solanum Lambertiana.—This is a fine large leaved species, bearing a corymb of pretty purplish blue flowers, which are rendered still more striking with its fine yellow anthers.

Clematis arvensis.—This new species is most beautiful, and deserves a place in every greenhouse or conservatory. (See figure in the present number).

Spirea argentea. Silvery-leaved. A hardy shrub of great beauty, bearing handsome reddish coloured blossoms.

Camorhiza.—A most strikingly handsome flowering species, and which we were informed would flourish freely with a greenhouse temperature. The flowers are near two inches long, of a brilliant scarlet colour, marked with a very dark crimson spot. The plant produces a profusion of blossoms. It deserves a place in every collection.

Natalia peperis, var. grandiflora.—The plant is nearly hardy, and blooms early. The flowers are of a deep rosy-red colour, each of which was from two and a half to three inches in diameter. The plant well deserves a place in every flower garden.

Phlox Drummondii. A figure of this beautiful flowering annual, we gave early in the year. We have seen three kinds in bloom, the original species, and two varieties which are very handsome, one of the varieties has pink coloured flowers, and the other very nearly a velvet colour. There are some other varieties which we saw, but not of equal interest with those we mention. Every flower garden should be ornamented with these plants, and when grown in pots in a greenhouse, they are fine summer ornaments for the purpose.

Cytisus elegans. A new and handsome yellow flowering species, requiring, as we understood, to be grown in the greenhouse.

Hoya illicifolia. A fine flowering species, with handsome foliage, it deserves a place in every greenhouse.

Manettia glabra. Its very handsome trumpet shaped blossoms, of a fine red colour, and produced in profusion, renders this plant most desirable for the greenhouse. The plant may be obtained, two or three feet high for half a crown; no person, we think, would regret the purchase.

Poinsettia pulcherrima. This plant is becoming much in repute, that part of it, which answers the purpose of a splendid flower, is the bracteal leaves, they expand to the dimensions of from twelve to twenty inches across, and are of a fine crimson-red colour, at once most strikingly grand. It will require a hothouse temperature, we are informed, though we saw very healthy plants growing in a greenhouse in October. The price of a small plant would be £2., and of a plant three or four feet high, from £7., to £10.

Tropeolum. A new kind with fine yellow flowers, the form of *T. tricolorum*. Being produced in abundance, renders it a desirable species; Mr. Thompson, Nurseryman, Beaulah, near Norwood, Surry, has fine plants of it for sale. It has been imported from Valparaiso. Mr. Thompson offers plants of it at one guinea each, and they are well deserving the price.

Rhododendron ponticum, var. flora plena, Double flowered. A very pretty lilac purple flowered variety; it deserves a place in the shrubbery.

Gillardia picta.—The profusion of beautiful blossoms which this plant produces, renders it one of the most showy. The large crimson red centre, margined with bright yellow, and the flower two inches across, makes a splendid appearance. We recommend it for every flower garden. Plants may be obtained at two shillings each; or seed may be procured at a reasonable charge.

Verbena pulchella alba.—This is a white flowering variety of this pretty creeping plant. Very suitable for rock-work, or dwarf edging for a bed, or border—it is cheap.

Verbena Drummondii.—Much the habit of *V. Lambertii*, but much more robust, having flowers larger, and of a deeper rosy-red colour. It may be procured at two shillings each.

Salvia leucantha.—A very pretty species which we saw growing in the select and well managed collection of Mrs. Marryatt, Wimbledon. We shall give further particulars of many scarce and valuable plants we saw in this enchanted place.

Silene flos aculi plena, Double flowering. This is a very pretty flowering plant; very free in blooming. The flowers are of a rosy-lilac colour. It merits a place in every flower garden.

Gardogii Hookeri.—A most beautiful flowering plant, which deserves a place in every greenhouse. The plant is a most profuse bloomer; the flowers, each, an inch and a half long, of a fine orange-red colour, producing a most imposing appearance. The plant appears to grow freely in sandy peat. It strikes well from cuttings; the old plants are apt to die off, but a supply of young plants should we think, always be kept up. No person will regret the purchase of the plant—it may be procured at a moderate cost.

MISCELLANEOUS INTELLIGENCE.

Centauria Cellowii.—A very pretty flowering species, of recent introduction. (We shall notice again.)

Brugmansia aurea, Golden flowered. The flowers are larger than those of *B. sanguinea*. It is a very desirable species to cultivate with the *suaveolens* and *guinea*.

Linum cuningia.—A very handsome flowering flax, with very pretty yellow flowers. The plant deserves a place in every greenhouse.

Pultenea subumbellata.—This is a very handsome flowering plant; its neat growth, pretty flowers, and profusion of them, recommend it to every greenhouse.

Samolus prostrata. This is a pretty flowering greenhouse plant, flowers freely. The blossoms are small, but very neat.

Frankenia paniciflora.—The specific name very ill accords with the profusion of flowers produced. The plant merits a place in every greenhouse. (We shall notice this hereafter.)

Pultenea vestita.—A very handsome flowering plant of this neat and pretty tribe. It is far the handsomest of any we know, and deserves to be in every greenhouse. Mr. Lowe has plants of it for sale, as well as of most we have mentioned.

Rubus Chinensis.—A new species, of singular and pretty growth. We have heard this plant very highly spoken of, and recommended to every collection of greenhouse plants. It was not in bloom when we saw the plant, but if we recollect right, the flowers, it was said, were large and of a pink colour. This we will ascertain and give further particulars.

Melaleuca.—A new species, the specific name not known. It is of a dwarfish habit, bearing abundance of flowers of a fine pink colour. This deserves a place in every collection. We shall endeavour to get further particulars of this plant.

Statice arborea; *S. foliosa*; and *S. puberula*. We saw plants of these new and fine flowering species at Mr. Lowes; the two latter we have seen in bloom, and consider them pretty. We have been informed that twenty-five pounds per plant is asked for the first named kind, by the nurserymen in Scotland, where it has bloomed, and attracted considerable notice.

Euphorbia Jacquinii.—A new and handsome species, the flowers something like *Poinsettia pulcherrima*. It deserves a place in every collection. If we mistake not, we were told it would flourish well in the greenhouse. Of this plant we shall give further remarks.

Gompholobium mucronata.—A beautiful flowering species—the yellow and red blossoms being produced in profusion. It is a very desirable plant for the greenhouse.

Solanum arborea.—A fine looking stove species, producing large lilac coloured blossoms, making a pretty appearance.

Stephanotus floribundas.—A very neat and pretty flowering plant, making a pretty appearance in September, October, and November; very ornamental to the greenhouse.

PELARGONIUMS.—The following twenty-six kinds of *Pelargoniums*, are the most superb and splendid which are to be found in the fine collections around London. The selection was made out of many hundreds at the different nurseries. The whole may be procured of Mr. Catlough or Mr. Gaines.

Alcibi	Lady Nithsdale
Village Maid	Jantho
Colossus	Nosegay
Glow Worm	Maid of Athens
Lady Blanche	Rougeet Noir
Eliza	Rembrant
Fiction	Brutus
Francesca	Standard
Spadilla	Bellissima
Lydia	Criterion
Pen de Joie	Amelia
Chief d'œuvre	Bride
Geraldine	Dennis Perfection

Mr. H. Stanford, Florist, &c., St. Leonards, Horsham, Sussex, forwarded to us some specimens of a very splendid seedling *Pelargonium*. The flowers are very large, and of a brilliant rosy-scarlet colour, producing nine of its large blossoms in one truss; and many of these upon a single plant. Mr. Stanford is provided with strong plants, which will be ready for sale, at 7s. 6d. each, by April 1837.—CONDUCTOR.

REVIEWS.

FLORA METROPOLITANA, or Botanical Rambles within thirty miles of London; being the result of numerous excursions made in 1833, 34, and 35; furnishing a list of those plants that have been found on the different heaths, woods, commons, hills, &c., surrounding the Metropolis, (more particularly the counties of Surrey and Kent,) chiefly from actual observation, and the latest authorities. Intended for the student in practical Botany. With a list of the land and fresh water shells of the environs of London. By Daniel Cooper, London, 1836. 8. Highley, 32 Fleet Street; 12mo., p. p. 139.

Mr. Cooper has rendered essential service to those persons who have opportunities of walking much in the circle of the country that is described; to persons of this class the work must be of peculiar interest. We think every inhabitant of Britain ought to know the native plants, more particularly, however, all that are to be found in the neighbourhood in which the individual resides. The plants to be found near to the specified places, are grouped according to the natural system. Wimbledon Common, including Putney Heath, 227 species are described as growing. Wandsworth Common, 110 species are enumerated, &c. The author may, doubtless, render work still more useful by giving the colours of each flower. It is a neat pocket volume of peculiar interest.

FLORA HIBERNICA, comprising the Flowering Plants, Ferns, Characeæ, Musci, Hepatica, Lichens, and Algae, of Ireland. Arranged according to the natural system, with a synopsis of the genera, according to the Linnean system, by James Townsend Mackay, M. R. I. A., Associate of the Linnean Society, &c. Dublin: W. Curry and Co., 1836; p. p. 632.

The work is got up, as it is usually termed, in a very superior manner, and is highly creditable to the author and publishers. The description of the orders, &c., and of the plants, is very complete. Reference is also given to the native situations of each. It is a very valuable acquisition to the inhabitants of Ireland. The second part of the work, which contains the Musci, Hepaticæ, and Lichenes, comprising 260 pages, of the 632, is peculiarly useful and interesting. As every resident of a country ought to be acquainted with its native plants, we hope the readers of the *Cabinet*, resident in Ireland, will avail themselves of the use of this publication.

THE BOTANIC GARDEN, or Midland Floral Magazine, containing accurate delineations, with Botanical and popular descriptions of plants cultivated in the greenhouse or open garden—and remarkable either for their beauty, their variety, or their singular structure. Conducted by G. B. Knowles, Esq., M.R.C.S., F.L.S., &c.; and Frederick Westcott, Esq., Honorary Secretaries of the Birmingham Botanical and Horticultural Society.

Three Numbers of this new periodical have appeared. The size is large post 4to., and each number contains four coloured figures of new, or otherwise interesting plants. There are eight pages of letter-press, two to each figure. One page is nearly occupied with scientific Latin descriptions of the plant; the other with useful directions for its cultivation. These instructions are highly creditable to the gentlemen who conduct the work.—It is got up in a superior style, which renders it necessary for the price to be high; we fear this will limit the circulation of a work which ought to be extensive, much less than its merits entitle it.

THE BOTANIST, containing accurately coloured figures of tender and hardy Ornamental Plants, with descriptions scientific and popular, intended to convey both moral and intellectual gratification. Conducted by B. Maund, F.L.S.; assisted by the Rev. I. S. Henslow, M.A., F.L.S., Professor of Botany in the University of Cambridge.

This new periodical, like the *Botanic Garden*, so long and ably conducted by Mr. Maund, is peculiarly neat; it is printed in uniform size with that work, having a large and small edition. Each number contains four coloured figures of plants,—both hardy and exotic plants are included. Dissections of various parts of the flower, &c., are given to illustrate what the conductors have in view. The chief object appears to be the illustration of the natural system of Botany. To accomplish this fully, they propose from time to time, to prefix a short popular view of one or other of these orders, in *The Botanist*. A dictionary of botanical terms is given on a separate sheet, with the work, but can be bound up separately, being of a smaller size.

REFERENCE TO PLATE.

A *Clematis azaraca*.—This very handsome flowering species, has been lately introduced into this country, but from whence we know not. We saw it blooming freely in the greenhouse of Mr. Lowe, Clapton Nursery, near London. It is a most valuable acquisition, and will be a very great ornament to the greenhouse or conservatory. Being a climber, it will be peculiarly adapted for making a show up a pillar, along a trellis, or trained up a wire frame, of the kind noticed in the *Cabinet*. The plant appears to grow freely in a rich loamy soil.

B *Kennedyja glabrata*, Smooth-leaved. This very handsome and neat flowering plant has recently been introduced from New Holland, and certainly far surpasses any other species in this country. It is a greenhouse climber, growing freely in sandy peat soil, and blooming most profusely. Its pretty scarlet, brown, and green blossoms, are strikingly neat and pretty beyond our description. It deserves a place in every greenhouse or conservatory. Mr. Knight of King's Road, has plants for sale.

C *Lychnis Bungeana*.—This very handsome half hardy plant was introduced into this country, in 1835. It was sent from St. Petersburg by Dr. Fischer. The plant has bloomed in several collections during the last summer. All the plants we have seen of it, have been grown in pots, and being kept in a cool, light, and airy part of the greenhouse. The soil was a rich loam and sandy peat, and plenty of pot room. The finest plant we have heard of, was seen by our friend Mr. Barratt, in a tour he took in Scotland, who states that the plant was three feet high, or upwards, and the stem crowned by a head of blossoms, about eight or ten inches in diameter. A coronet of blossoms of such a brilliancy of colour, must be peculiarly showy, and recommend the plant to every greenhouse. We are informed that plants may be kept in a cool frame during winter, so as to preserve them from injury by frost; and if turned out into the open border in rich soil, and a sunny sheltered situation, it will flourish freely and bloom profusely. The plant increases freely by cuttings, in consequence of which, plants may now be procured at a very reasonable price.

D *Pentstemon Murrayanus*, Mr. Murray's Scarlet Pentstemon.—A hardy perennial plant, a native of the Texas, from whence it was sent by Mr. Drummond. Seeds of it were sent rather late in the summer of 1835, but the plant however blossomed that year in the Glasgow Botanic Garden. We have seen a plant this year grown in a border of rich soil, open to the sun, and sheltered by a brick wall, which had a flower stem five feet high, with numerous spikes of flowers, producing a splendid appearance. The plant bought to be grown in every flower garden. Plants may be obtained at a very reasonable price. Our wish to give our readers a figure of it in the present plate, prevents us doing more than give a small specimen, and the flowers we have drawn one-third less in size than the specimen from which the drawing was taken. Our readers will, however, be able to judge of its merits by the figure.



INDEX

TO THE PLANTS, FIGURED IN VOL. IV, 1836.

	Facing Page.		Reference.	
Acme of Perfection, Dahlia	97	119		
Anagallis Phillipsii	193	216		
Antirrhinum caryophylloides	193	215		
Barratt's Four Seedling, Pansies	145	198		
Beauty of Anlaby Pansy	217	240		
Bignonia cherere	49	72		
Calceolaria maculata	193	216		
—splendens	217	240		
Calochortus venustus	25	47		
—splendens	71	95		
Chrysanthemum indicum, var sulphurea	1	24		
—sanguinea	1	24		
—expanded crimson	1	24		
Canavalia bonariensis	49	72		
Clematis azurea	265	298		
Dodd's Mary Dahlia	121	264		
Eutoca Menziesii	121	144		
—viscida	25	47		
Inimitable Dahlia	121			
Kennedy glabrata	265	298		
Lychnis Bungeana	265	298		
Malva Fulleriana	241	264		
Mimulus cardinalis	73	96		
—Elphinstonea	121	144		
—Ranbyania	145	198		
—Rawsonia	169	192		
Nolana atriplicifolia	217	240		
Oxalis Piottæ	25	47		
Pentstemon Cobææ	73	96		
—Murryanus	265	298		
Phacelia congesta	25	47		
Phlox Drummondii	49	72		
Sphænogyne speciosa	217	240		
Thunbergia alata, var. alba	73	95		
Tournefortia heliotropioides	121	141		
Tropæolum elegans	169	192		

GENERAL INDEX.

	<i>Page</i>
A. B., Query on Cape Bulbs, by	137
A. B. L., Answer by	67
A. B. L., Remark on answering Queries, by	214
<i>Acacia vestica</i> , noticed	211
—— <i>prominens</i> , do.	185
A Constant Reader, on Peat Soil	18
A Country Florist, on the culture of Orchideous Plants, by	133
A Cultivator of Cape Bulbs, On heating a Pit Frame, by	49
A Cupar Florist, Query by	137
<i>Adeamia pendula</i> , noticed	62
A Friend to the Floricultural Cabinet, Query by	18
A Foreman of a London Nursery, On Inarching, &c.	127
<i>Agrostemma Bungeana</i> , noticed	42
A Lawyer's Clerk, Query by	18
<i>Alstrœmeria aurantiaca</i> , noticed,	89
—— Query on the Culture of	188
<i>Allium sicutum</i> , noticed	234
Alpine Plants, Query on the Treatment of	292
Amateur des fleurs, Query by	137
Amateur Florist, On the Culture of the Tulip, by	7
Amicus, Designs of Flower Gardens, by	56, 117, 137, 164
<i>Amaryllis sarniensis</i> , Culture of, by Snowdrop	14
—— <i>Psittacinia, hybrida</i> , noticed	289
<i>Anagallis Phillipsii</i> , reference to figure of	216
<i>Anchusa versicolour</i> , noticed	89
<i>Angrœcum caudatum</i> , do.	104
Annuals, on a proper soil for,	187
Annuals, List of	293
An Old Subscriber, on a Seedling Transplanter, by	179
<i>Antirrhinum carryophylloides</i> , reference to figure of	215
—— <i>glandulosum</i> , noticed	234
<i>Anomatheca cruenta</i> , Query on raising and culture	236
An Original Subscriber, Query by	260
An Old Florist, Query by	18
A Practical Lady Gardener, Answer by	19
A Practical Lady Amateur, On the culture of the Neapolitan Violet, by	122
An East Hants Constant Reader, Query by	66
Aphis (green fly) On destroying	190
<i>Aptosimum depressum</i> , noticed	212
Arboretum, Remark by	72
<i>Ardisia odontaphylla</i> , noticed	234
Armstrong Emily, On Plans of Flower Gardens	10
—— On the Culture of German Asters	39
—— On the culture of the <i>Lobelia cardinalis</i>	6
—— Remark by	20
A Regular Subscriber, Query by	19
<i>Aristolochia furtans</i> , noticed	42
A Star in the East, On the Dahlia, by	130
—— On the Hydrangea, by	166
<i>Astragalus Monspeulanus</i> , noticed	42
Asters, German, On culture of	39
<i>Aspasia variegata</i> , noticed	289
A Subscriber and Constant Reader, Query by	235
Auriculas, Query on	292

	<i>Page.</i>
A Subscriber, Answer on the Dahlia, by	138
Query on Destroying the Scale infesting Camellias, by	163
Query on Pansies, by	214
A Yellow Flower, on	138
Azalea Rawsonii, noticed,	185
nudiflora	104
On the Culture of	31
A. Z. Query on the Dahlia, by	45
Barratt, Mr. William, On Forcing Roses, by	73
Bartonea aurea, noticed	62
Bath Horticultural Meetings,	119, 132, 140
Bay Tree, On Propagating the ..	67
Begonia platinifolia, noticed	185
sanguinea do.	234
Berberis empetrifolia, do.	234
Bifrenaria aurantiaca, do.	185
Bignonia cherere, Reference to figure of ..	72
Bletia patula noticed ..	234
Tankerville, On the culture of, by Mr. Parkin	97
Query on ..	45
On culture of	126
Botanists Guide, by H. Watson, Esq., Reviewed ..	62
Bouvardia triphylla, On the culture of ...	65
Box, On a, for conveying flowers in	125
Bone Manure, Query on	215
Brugmansia arborea, On the culture of ..	165
Brugmansia Suaveolens, On Growing	284
Brunonia australis, noticed	63
Bryant Mr., On the culture of Maurandia Barclayana	9
Bug, Query on the Mealy	19
Bulbs, Remarks on Cape	20, 45
Border Flowers, Select list and description of perennial, by Mr. J. Brown ..	271
Botanic Garden, or Midland Floral Magazine, Review of the	297
Botanist, Review of the	4b.
Bleaching Leaves, On, by H. D.	288
Begonia Fischeri, noticed	289
Bartonea aurea, do. ..	4b.
Botanical Society, Query on a ..	292
Billardiera Melocarpa, Query on	292
Cary Tyso, Remarks on Raising Seedling Ranunculuses, by Mr.	273
Clair, Mr. William, St., On the Propagation of Pinks	267
Clintonia pulchella, noticed	289
Cyrtopodium Willmorei	289
Craspedia glauca, do.	290
Cratægus Mexicana, do.	390
Competition, Answer on,	294
Clematis azurea, Reference to figure	289
C, On Heating Greenhouses, by	101
Calceolaria maculata, Reference to Figure	216
Query on a white.	18
On raising new varieties of Mimuluses, by	76
Calliopsis Drummondii, noticed	15
tinctoria, do.	90
tinctoria, atro purpurea, do.	235
Calochortus venustus, Reference to figure	47
splendens, do.	95
Calycanthus præcox, Query on ..	137
Camellia reticulata, noticed	161
Query on a list, and prices of ..	18
On growing in the open air	67

	<i>Page.</i>
<i>Camellia</i> On the culture of the	52, 199
<i>Donckelarii</i> , noticed	133
A continued list of	154
Cambridge Florist Society, Exhibition of..	143
<i>Campanula</i> Loreyi, noticed	104
<i>Campanulas</i> , A description of some of the handsomest	204
Cape Bulbs, Query on	137
Carr, Mr. John, Remark by	70
Carnation Show, near Wolverhampton....	24
<i>Catleya labiata</i> , noticed	161
C. C. C., Remark by	111
<i>Centracarpa chrysomelia</i> , noticed	15
<i>Cereus Napoleonis</i> do... ..	42
<i>Chrysanthemums</i> , A new arrangement of the Chinese	25
On Growing dwarf plants of....	67, 123
Remark on Seedling	70
Query on Seedling	213
Challenge to <i>Ranunculus</i> growers	71
Charles, Mr. William, On the culture of the <i>Dahlia</i> , by ..	158
<i>Chelagaster gracilis</i> , noticed....	105
<i>Citrus</i> , On the culture of the Genus	209
<i>Cirrheæ tristis</i> , noticed	235
<i>Corroloba virens</i> , noticed	15
Conolly, Jun., Query by Mr. T.	19
Remarks on <i>Pinks</i> , by Mr. T.	109
<i>Collomia Cavanillissi</i> , noticed	63
Conservatory, Query on a list of plants for a small	236
On preparing the borders of a	114
Cooperi <i>Drummondii</i> , noticed....	63
<i>Coreopsis coronata</i> , do.	42
<i>senifolia</i> , do.	105
<i>diversifolia</i> , do.	90
<i>filifolia</i> , do... ..	185
<i>Coryanthus macrantha</i> , do.	90
<i>Coronilla glauca</i> , Query on	163
Caterpillar, On Destroying the, by M. S.,	293
C. S., Query by	66
<i>Cosmella rubra</i> , noticed	43
<i>Cotonaster laxiflora</i> , do.	235
<i>Crataegus Crus-galli</i> , do.	161
<i>prunifolia</i> , do.	186
<i>pyrifolia</i> , do.	186
<i>plataphylla</i> , do. .. .	212
<i>odoratissima</i> , do.	245
<i>tanacetifolia</i> , do.	105
<i>spathulata</i> , do.	134
<i>macrocarpa</i> , do.	134
<i>orientalis</i> , do.	105
<i>macrocarpa</i> , do.	235
<i>heterophylla</i> , do.	19
<i>Crocus suaveolens</i> , do.	25
<i>Crybe rosea</i> , do.	45
<i>Cyrtopodium punctatum</i> , do.,....	66
<i>Dahlia</i> blooms, query on carrying	71
On the proper pronunciation of	111
Query on the Introduction	111
Plants, Query on,	111
Flowers, Remark on Stand for	111
On striking young shoots of	111
Remarks on the Tree	111

Dahlia Query on a hundred of the best	92
A list of prize, for 1835	93
A list of the highest prized,	94
A few remarks on the	130
Dahlia Blooms, and a Box for conveying	138
Culture of, by Mr. William Charles	158
Show at Horsham,	166
Exhibition of at Salthill,	262
at Bath	ib.
at Sheffield	264
History of the	8, 10, 138
Daphne odora , noticed,	43
Dendrobium macrostachyon , noticed	162
densiflorum do.	43
moniliforme, do.	134
Denyer , Mr. William. On destroying moss by	237
Devonian , On the Culture of the Pomegranate, by a	98
On Forcing Roses, by	75
Doncaster Horticultural Society , Exhibition of	22
Drying Plants , new method of	17
Douglassia nivalis , noticed,	212
Earwigs , on destroying,	77
Eceremocarpus scaber , Answer on,	67
Elichrysium bicolor , noticed,	15
Epidendrum amulum , do.	258
armenium do.	162, 212
Epidendrum Skinnerii , noticed	162
bifidum	186
conopseum	16
Ephiphyte , Query, by	137
Ericas , A select list of Cape	57
On raising Young Plants, of	207
Erytholena , Conspicua, on the Culture of	179
Escallonia illinita , noticed	258
E. T. E. description of a box for conveying flowers in, by	125
Eulophia lurida , noticed	16
Euphorbia Bojerii , noticed	258
Exotic Plants , on raising from seed	169
Ferns , on the culture of some Foreign in the open air	178
On Growing in Boxes	195
Epidendrum macrochilum , noticed	290
Epimedium macranthum , do.	290
Ferguson , Mr. James, On Protecting Tender Plants during Winter	286
Figgans , Mr. James, query by	260
Fireside Tradition	103
Flora Hibernica , Reviewed	297
Flora Metropolitana , or Botanical Rambles, Reviewed	297
Flora , Gleanings by	158
Query on Camellias, by	67
On a Hortus Siccus, by	215
Flower Gardens , Designs for,	10, 56, 117, 157
Beds, Baskets, &c. On, by Gooseberry	124
Flowers , Query on a list of	18
Florists Cultivator Reviewed,	87
Floricultural Impostures	102
Fuschia macrostemma noticed,	259
discolor,	186
Remarks on	188
on a hedge of	156
Galatella punctata , noticed,	16

	<i>Page.</i>
<i>Gaurea parviflora</i> do.	186
Gardener, on Qualification for a Complete	238
Geert, Mr. C. V., on the culture of <i>Azaleas</i> , by	31
<i>Gentiana quinqueflora</i> , noticed,	186
<i>Geraniums</i> , on preserving through Winter	226
<i>Geranium</i> Seed, on the best season for sowing	137
Gigantic Flower ...	103
G. J., query by	93
<i>Gilia tenuiflora</i> , noticed	235
Ginger, on the culture of	122
<i>Gladiolus's</i> , query on	66
Gleanings from Old Authors....	60, 82, 125, 150
Godwin, Mr. A., Answer on <i>Roses</i>	170
Godwin, Mr. Archibauld, Remarks on the <i>Reversa Elegans Rose</i> , as suited for a Trellis, or as a Pillar Rose ..	283
Goodall, Mr. Francis, On a list of conservatory plants, by ..	149
<i>Goodetia lepidia</i> , noticed	105
<i>vinosa</i> , do. ..	186
<i>rubicunda</i> , do.	134
Gooseberry, On Flower Beds, Baskets, &c., with figures, by..	124
Grafting, on, <i>Rhododendrons</i> ..	137
Greenhouse Plants, on taking in	252
Guernsey Lilly, on the culture of the	14
<i>Habenaria procera</i> , noticed	162
Hampshire Horticultural Society Exhibition	144
Heartsease, On the Culture of,	193
Heartsease, On the, by Mr. Todd	281
Heating a Pit Frame, On, By a Cultivator of Cape Bulbs ..	49
a Greenhouse, &c.	101
by Steam, On	93
Henrietta, On destroying Earwigs, by	77
Herbaceous Plants, Answer on mixing with Shrubs	236
<i>Hibiscus splendens</i> , noticed	212
<i>rosa sinensis</i> , do.	63
Hortus Siccus, On a ..	215
Hot Water Apparatus, Remark on	111
On Heating, by	215
<i>Hoya carnosa</i> , Query on the Culture of ..	260
Hull Floral Society, Exhibition of	141
Hurst, Mr. William, On mixing Herbaceous Plants with Shrubs, by ..	236
<i>Hyacinths</i> , Query on the Culture of	188
On a List of the best for Forcing	237
<i>Hyacinthus spicatus</i> , noticed,	162
<i>Hyacinths</i> , On the Culture of, by J. R. W. Wellington	282
<i>Hydrangea hortensis</i> , On causing the Flowers to become blue	78
Remark on,	166
Inarching, On, Stove, Greenhouse, or other Plants,	127
Innovator, Remark on <i>Pinks</i> , by	68
Insects, Query on,	260
<i>Ipomea rubro cœrulea</i> , noticed	162
<i>Iris alata</i> ,	186
<i>spuria</i>	63
<i>Iberis coronaria</i> noticed	290
<i>Ionopsis tenera</i> , do. ..	290
<i>Jaborosa integrifolia</i> , noticed,	134
J. C. H. Answer by ..	108
J. K., on Dwarf <i>Chrysanthemums</i> , by	123
on a List of Show <i>Pinks</i> , by	260
queries by	19
Jones, Mr. J., remarks by	111

	<i>Page.</i>
Jones, Mr. T., Query by	93
Rev. James, on a List of Roses, by	241
Rev. J., A Description of Thirty of the best kinds of Moss Roses,	285
J. R., on the culture of Foreign Ferns in the open air	178
J. R. W., query by ..	45
J. W. D., remark by	ib.
Kamel, Mr. G. J., On a List of Camellias, (continued)	154
Kageneckia cratægifolia wanted ..	95
Kennedyia glabrata, noticed	ib.
Stirlinghii	ib.
microphylla	ib.
Laburnum, Remark on the Purple Blossomed	190
Landscape Gardener Reviewed ..	86
Lapeyrouasia anceps, noticed	239
Lasiopus sonchoides, do.	213
Lasthenia californica, do.	43
Lathyrus rotundifolius, do.	135
Leaves, Answer on dissecting ..	19
Leeds Florist Society, Exhibition of	142
Leptosiphon androsaceus, noticed	135
Linaria canadensis, noticed	90
Lilium longiflorum, do.	43
Linum Berendiera, do.	106
London Horticultural Society, Exhibition of	109, 140, 191
Lonicera flexuosa, on the treatment of ..	123
Lobelia cardinalis, on the culture of	6
decurrens, noticed ..	90
Louisa Harriett, On the Culture of Cyclamen persicum, by	30
Remark by	71
Lupinus bimaiculatus, noticed, ..	16
subcarnosus, do. ..	63
texensis, do. ..	135
latifolius, do.	235
Lychnis Bungeana, noticed, ..	162
Reference to Fig.	298
Lycium afrum, noticed	63
M. S., On destroying the Caterpillar, by	274
Moss on Walks, On destroying, by Mr. John Shepherd	266
Moss Roses, A description of Thirty of the best kinds of, by the Rev. J. Jones,	285
Mimulus, On the Culture of, by Salvia	270
M. S., On destroying the Caterpillar, by ..	274
Macradenia tricandria, do.	16
Malva Fulleriana, Reference to figure	261
Manettia cordifolia, noticed	162
Maria, Query on Alstræmerias, by	188
On Culture of <i>Lonicera flexuosa</i> , by	123
Query on <i>Coronilla Glauca</i> , by	163
Query on Moss, by	137
Answer on a Yellow Flowering Plant, by ..	138
On destroying Snails, by	121
Markham, Mr. H., On the culture of Ginger, by ..	122
On Culture of <i>Bletia Tankervillei</i> , by ..	126
Marmodes atropurpurea, noticed	162
Martin, Mr. John, A new arrangement of Chrysanthemums, by	25
Maud, Mr. J., on causing the <i>Hydrangea hortensis</i> to produce blue flowers, by ..	78
Maurandia Barclayana, On the culture of	9
Maxillaria rufescens, noticed ..	105
aromatica, do.	162
Mcarns, Mr. John, on the culture of <i>Bouvardia triphylla</i> , by	66
Metropolitan Society of Florists, &c., Exhibition of	113, 114, 115, 139, 191

	Page.
<i>Mimulus</i> , Query on the	18
On raising new varieties of	76
<i>Cardinalis</i> , Reference to Figure	95
<i>Ranhyana</i> , do.	168
<i>Rawsoniana</i> , do.	192
<i>Elphinstonea</i> , do.	
<i>Mignonette</i> , On the culture of the Tree, ..	188
<i>Mimosa sensitiva</i> , Query on	108
<i>Monarda aristata</i> , noticed	259
<i>Mondrassora autumnalis</i> , noticed	90
Monument to Mr. Douglas, on a	261
Moss, Query on destroying	137
On destroying	237
<i>Myanthus barbatus</i> , noticed	257
<i>deltoideus</i> , do.	259
Myrtles, History, &c., of	228
<i>Nerium thrysiflorum</i> , noticed	135
Nemo, Query by	213
<i>Nemophila aurita</i> , noticed	163
<i>Nierembergia calycina</i> , do.	43
<i>Nolana atriplicifolia</i> , Reference to figure	240
N. S. H., Answer by	108
<i>Ochranthe arguta</i> , noticed	16
<i>Oenothera densiflora</i> , noticed	91
<i>serotina</i> , do.	91
<i>humifusa</i> , do.	64
<i>Oncidium Russelleianum</i> , do.	64
<i>altissimum</i> , do.	136
<i>cornigerum</i> , do.	136
<i>crispum</i> , do.	186
<i>Lanceanum</i> , do.	213
Orange trees, Remarks on	215
Orchideous plants, On the culture of	33, 156
<i>Oncidium iridifolium</i> , noticed ..	291
<i>Onobryches radiata</i>	291
Orchideous Plants, Query on	137
————— Query on the foliage of, being damaged	163
<i>Oxalis Plotze</i> , noticed	16
————— Reference to Figure	47
<i>Oxura chrysanthoides</i> , noticed	106
Pansy, Pearson Walton, Remarks on,	107
Pansies, Mr. W. Barratt's Seedlings, Reference to Figures of	168
Peat Soils, Query on	18
<i>Pelargoniums</i> , Remark on	296
Pendulous growing trees, Remarks on	71
<i>Pentstemon Cobea</i> , noticed,	64
Reference to Figure	95
<i>Murrayanus</i> , do.	91
Reference to Figure	298
<i>Pereskia Bleo</i> , noticed	91
<i>Poristeria peduncularis</i> , noticed	106
<i>Phacelia congesta</i> , do.	16
Reference to Figure	47
<i>vinifolia</i> , noticed,	187
<i>Phacelia tanacetifolia</i> , noticed,	291
<i>Phlox Drummondii</i> , Reference to Figure	72
<i>Physostegia truncata</i> , noticed,	187
Picotees, Remarks on	20
<i>Pimelea lignastrina</i> , noticed	44
<i>Pimelea hispida</i> , do.	
Pinks, Query on Superb	19

	<i>Page.</i>
Pinks, On the Culture of	233
Remarks on, by Innovator	68, 118
On Superior,	109
Propagation of, by Mr. William St. Clair	267
Plants from Madagascar	132
A List of, suited for a Conservatory	149
A List of, for training, ..	152
Plants, Remark on New or Handsome Flowering	294
Pleurothallis picta, noticed, ..	44
Poinsettia pulcherrimus, noticed	187
Poinsettia pulcherrima, Remark on the	294
Pomegranates, Double, Culture of, by a Devonian,	98
Double Flowered, Culture of, by Mr. David Whale, ..	99
Potentilla mollissima, noticed	106
R, Query on Roses, by	69
R, On dwarf Yellow Flowering Plants, by ..	68
R, On the Culture of the Ranunculuses, by	81
R, Query by	68
Ranunculuses, A List of Scotch Seedling ..	115
Ranunculuses, Seedling, Remarks on Raising, by Mr. Cary Tyso ..	273
Rhododendron hybridum, noticed,	17
pulcherrimum, do.	17
flavum, noticed,	107
arborescens var roseum, noticed,	163
arborescens, Remarks on	166
Ribes malvaceum, noticed	163
R. L., Query by	214
Rondeletia odorata, noticed,	291
Rosa, On Pruning Garden Varieties, by	80
On the Culture of the Tree Rose, by	36, 79, 82, 181
Rose, On the Culture of, by Mr. Barratt,	74
budded on a Black Currant	68
On destroying the Aphis, &c. on the	190, 215
On the History of the Ayrshire	226
Remark on the Double Yellow Flowered	165
Rose, Remarks on the Reversa Elegans, as suited for a Trellis or as a Pillar Rose, by Mr. Archibauld Godwin,	283
Rosa microphylla, noticed	136
Roses, On changing the Colour of,	108
A Description of Climbing and Autumnal Flowering	241
On Forcing, by a Devonian	75
Remarks on Mr. Rivers' List of	69
On the Sale of	70
R, T, W, T, Answer on Propagating the Bay Tree	67
Salvia, On the Culture of Mimuluses, by ..	270
Saracha viscosa, noticed	64
Sarcochilus falcatus, do.	ib.
Sarah, On the Culture of the Tree Mignonette, by	189
Sarracenia rubra, noticed	257
Scale on Camellias, Query on destroying the	163
Scilla cupaniana, noticed	187
Seedling Transplanted, A Description of a ..	179
Seeds and Bulbs, to be disposed of	166
On East and West Indian, Remarks on	138
Senerio ampullaceus, noticed	136
Sertum Orchideum, Dr. Lindley's Remarks on	111
Shepherd, On destroying Moss on Walks, by Mr. John	266
Silene regia, noticed	17
Snails, On destroying	121
Snowdrop, On the Culture of Amaryllis sarniensis	14
South London Floricultural Society, Exhibition of	112, 167

	<i>Page.</i>
Specimens of Plants, On drying and preserving, by <i>Primula Scotica</i>	265
Spectator, On the Culture of the <i>Camellia</i> , by a	52
Cape <i>Ericas</i> , by a	57
<i>Sphænogyne speciosa</i> , Reference to Figure	240
Stand for Pansies, Query on a	19
On a, for Pansies, by Mr. Carey Tyso,	51
Stove Plants, Remarks on	100
<i>Streptanthus hyacinthoides</i> , noticed	257
<i>Strobilanthes Sabiniana</i> , noticed	ib.
Stocks, Query on, for budding <i>Roses</i> upon	93
Sutton and Sons, Remarks on the best <i>Hyacinths</i> for forcing, by . .	237
T. B., Query by	66, 67
<i>Telokia speciosa</i> , noticed	64
Tender Plants, On Protecting, during Winter, by Mr. James Ferguson	286
Thrip, Query on destroying the	214
<i>Thunbergia alata alba</i> , Reference to Figure of	95
Todd, On the Heartcase, by Mr.	281
<i>Tonbridgiensis</i> , Query by	214
<i>Tradescantia virginica alba</i> , noticed	187
<i>Trichophylla tortilis</i> , noticed	163
<i>Tournefortia heliotropioides</i> , Reference to Figure of	144
<i>Trifolium fucatum</i> , do	213
— <i>reflexum</i> , do.	61
<i>Tristania macrophylla</i> , do.	91
<i>Tropæolum elegans</i> , Reference to Figure of	192
— <i>tricolorum</i> , On the Culture of the	205
<i>Troxicum glaucum</i> , noticed	44
Tulip, Remark on the Seeds of the	138
— Answer on a Box for <i>Duchias</i> blooms, by	138
— On the Culture of the	7
Tulipa, Gleanings from Old Authors, by	60, 82, 125
Tulips, Remarks on the price of	215
<i>Turnera elegans</i> , noticed	291
Tyso, Mr. Cary, On a stand for exhibiting Pansies in, by	51
Tyso and Son, Catalogue of flower roots, &c., of Messrs, noticed . .	62
<i>Veltheimia glauca</i> , noticed	17
<i>Verbena rigosa</i> , do.	41
— <i>erinoides</i> , var. <i>Sabinia</i> , noticed	122 213
<i>Veronica labata</i> , noticed	44
— <i>speciosa</i> , do.	44
— <i>ligustrifolia</i> , do.	44
— <i>diosmaefolia</i> , do.	44
— <i>exaltata</i> , do.	107
<i>Versicaria gracilis</i> , noticed	291
Violets, Query on Russian	66
— On culture of Neapolitan	118
Warwickshire Floral Society, Exhibition of	21
Weather, Signs of Fair	261
W., On the Culture of the <i>Hyacinths</i> , by J. R.	282
Whale, Mr. David, On the culture of the Double flowered Pomegranate, by	99
Wire, Remarks on Metallic	191
Wire Worm, Query on destroying	236
Wire-Worm, Answer on the	292
Wood, Mr. William, Remarks on <i>Roses</i> , by	70
Wolverhampton Carnation Show	24
Yellow Flowering Plant, On a dwarf	68
Young, Mr. John, Remarks by	20
<i>Yucca draconis</i> , noticed	257
— <i>flaccida</i> , do.	258
<i>Zephyranthus Drummondii</i> , do.	91

THE
FLORICULTURAL
CABINET,

AND
FLORISTS' MAGAZINE,

JANUARY TO DECEMBER, 1837

VOLUME V.

CONDUCTED BY MR. JOSEPH HARRISON

NURSERYMAN,

DOWNHAM NURSERY

NORFOLK

LONDON :

WHITTAKER & CO. AVE MARIA LANE

R. ORRANTAW PRINTER KING'S CROSS

PREFACE.

IN presenting our readers with the Fifth Volume of the Floricultural Cabinet, we do most unfeignedly offer our most sincere thanks to our numerous subscribers and contributors for their patronage and support.

Although, with each former Volume, we had the high gratification of an increasing demand, yet the circulation has extended more during the present year than any previous one, since our first Volume was published, and the sale has been increased by more than ten thousand numbers. This fact affords us no ordinary degree of pleasure, whilst it assures us that our labours have been approved.

Nearly up to the present period, our opportunities for acquiring information for all the recently introduced plants has been very limited, by reason of our engagements in the situation we held as Gardener, at Wortley Hall; but now being at liberty, we have every desired opportunity of obtaining information of their introduction, character, culture, &c. With this object in view we have spent the past autumn in, and around London, viewing collections of plants, obtaining information, and taking notes thereof. These particulars will be given in future numbers. So sensible are we of the advantages that are afforded by viewing collections in and around the Metropolis, (which is in the aggregate the great mart for newly introduced plants,) and of such information being embodied in the Cabinet, for the benefit of our Readers, that we intend immediately to take a residence in or near London, and purpose to devote that attention to the subject, which will, we are persuaded, prove both interesting and useful to our subscribers,

and render the next Volume the best which has appeared, both for the cultivator of flowering plants in general, and the Florist whose attention is more particularly directed to a certain class of flowers. We pledge, that our utmost efforts shall be directed to effect the desired purpose.

We are under very great obligations to our friends who have, as heretofore, so liberally continued to favour us with communications for the present Volume. We again record our thanks for their kindness, and most respectfully solicit a continuance of their communications, to a work which is already so largely indebted to their favours, and which has materially contributed to their popularity, as to gain so unprecedented a circulation as the Floricultural Cabinet has obtained.

The Floricultural Cabinet having thus become the medium of circulating Floricultural Intelligence, to so great an extent, and our Readers, with us, being desirous to promote and extend its operations, we therefore respectfully solicit of each recommending our Publication to other persons, and whilst thus co-operating, the furtherance of the object will be promoted.

We again enter upon our Editorial labour for the next year with increased energy, and encouraged as to the future, by an increased number of friends.

Downham, Nov. 22d, 1837,

THE FLORICULTURAL CABINET,

JANUARY 1st, 1837.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.

DESCRIPTION OF A PLAN FOR A PLANT STOVE AND GREENHOUSE, WITH A POTTING SHED, &c. ATTACHED.

BY AN OLD SUBSCRIBER, PIMLICO, LONDON.

THE accompanying plans are designs for a Plant-Stove, Greenhouse, and a potting-house attached, for the use of amateur gardeners.

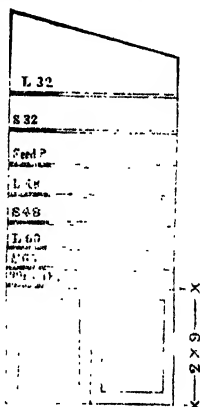
The first thing to be considered in the erection of a Greenhouse, &c., is the choice of a situation. The most proper will be, that which affords a full south aspect, and with the east and west sides open to these points of the compass.

The site of the building should be in a dry situation, for if not so placed, the warmth, or superior temperature of the house, will induce the moisture to rise out of the ground, and in cold seasons of the year will render it damp and chill. To prevent this, I should recommend that the entire site of the building be covered, a foot thick, with what is here called *Concrete*; that is a mixture of lime and gravel, or brick rubbish, in the proportion of about one of the former to three or four of the latter. The lime should be powdered and mixed dry with the other materials; then, before laying them upon the surface of the site, as much water should be added as will thoroughly moisten them. Two coats of this concrete, each being six inches thick, will effectually prevent the ascent of any moisture from the ground below.

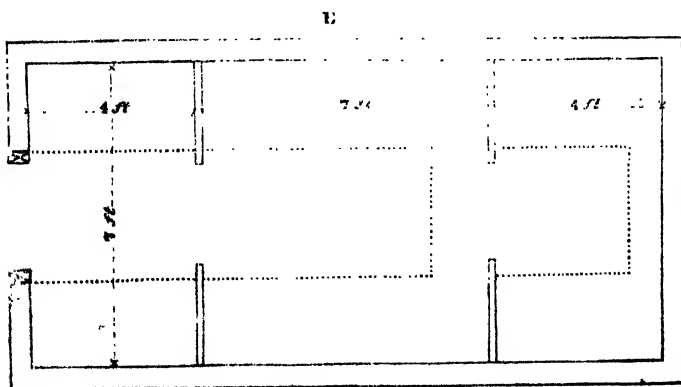
The next best aspect for a Greenhouse, will be on the east side of a house or other building which faces the south. In this situation the plants will have the advantage of the morning and mid-day sun. A Greenhouse constructed in any situation with a less favourable aspect than either of those described, will have but little chance of being suited to the growth of plants.

If the building be detached from any other, it will be necessary to provide separate means for warming it, and for this purpose, nothing can be better, or more economical, than the little furnace, &c., described in the *Floricultural Cabinet*, for March, 1836. If the ash-pit of the furnace was furnished with a good register door, the combustion of the fuel could be so managed as to continue the night through. The chimney should not be more than a foot long, with an elbow to pass through a six-inch wall—if longer, it will increase the draught too much. No doubt the gentleman who furnished the plan, &c., has provided the necessary appendages to his furnace.

The plans which I have sent you, consist, *first*, of a potting-room, four feet wide by seven feet long, (Fig. 1.) Through this to a greenhouse, seven feet square, (Fig 2.) And beyond this, descending two steps to the hothouse or Plant Stove, four feet wide, (Fig 3.) It will be perceived that the dimensions are small, but I think not too much so for the use of many amateur gardeners. Indeed some may desire smaller, in which case the potting-room and plant-stove need not form any part of the plan—or a portion of the three may be left out; say one side of each, leaving the remaining side and the gangway, which would, no doubt,



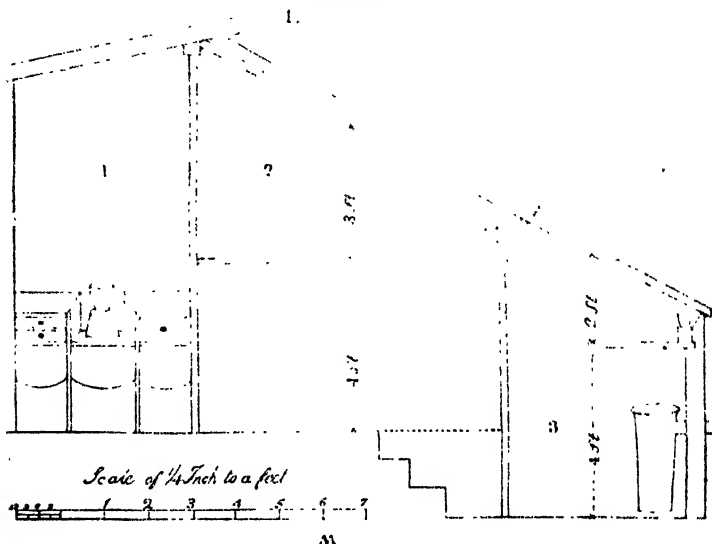
(Fig 2.)



A1

be quite sufficient for the use of many persons. A well arranged potting-room is a very necessary appendage to every greenhouse, and as there are very many operations to be performed in it, and much time spent there, it ought to be both conveniently and comfortably fitted up.

(Fig. 3.)



In the annexed plan, (Fig 3) one side of the potting-room is fitted up with a counter, in the top of which there is a well, sixteen inches square by eight inches deep. In the middle of this well is fixed a block of wood, eight inches square by six inches thick, leaving a space of four inches all round. The top of this block is two inches below that of the counter. The use of the block is to set the pots upon when potting, and the well round it is to hold the mould and keep it together. The space upon the top of the counter on each side of the well, is to place the pots upon as they are filled. Immediately under that part of the counter on the left of the well, are two drawers, one to hold tools, the other bass matting, cut into lengths of nine, fifteen, and twenty-four inches, to be ready for tying up plants. To the right of the well is a drawer for potsherds, for the use of drainage. The space under the drawers and well is divided into three bins—one for holding compost for annuals; another, compost for greenhouse plants; and a third, for any other compost that

may be required. The bins must be made to run upon castors, so that they may be readily taken out to be filled with such composts as may be required. The wall above the back of the counter should be fitted up with wells to receive round sticks for plants, of the lengths of 6, 9, 12, 16, 20, 24, and 30 inches. And for square sticks for border flowers, (or standards,) in lengths of 18, 21, 27, 33, 42, 54, and 66 inches. The opposite side of the room is fitted up with a closet, the top of which is a counter, or work-bench. Against the wall, over the back of this counter is a range of shelves for garden pots and seed pans. Eight inches of the back of this counter, (which is two feet wide,) forms the bottom of the first shelf. Each shelf is broad enough to hold two pots, and they are so distant from each other, as to admit of two standing one within the other. A set of shelves so arranged, and the pots thus placed, afford ample space for as many pots as will be required by most amateurs.

I have lately adopted a new mode of affixing names to plants that are grown in pots, it is as follows:—Instead of using tallies, I have had a blank label painted on the rim of each of my pots. For pots, up to large sixties, one inch is quite sufficient; for those above that size, one inch and a half. This affords ample space, either to write the name, or place a number. Either one or the other is done with a black-lead pencil, whilst the paint is newly laid on; this does not rub or wash out. Two coats of paint are necessary to have them look well; the last coat of paint should have less oil in it than the first, it will then be more easily written upon. These names will last as long as the pot, and is cheaper than any other description of labels. More time is required in preparing tallies, than is necessary in adopting my plan, and not near so neat or durable.

ARTICLE II.

ON RESTORING PLANTS WHICH HAVE BEEN AFFECTED BY FROST.—By MR. JACK FROST.

As the winter advances, a few remarks on the nature of rescuing Tender Plants from the effects of frost, by the application of cold water, may not be uninteresting to some of your readers. Every gardener is aware, that sprinkling cold water upon frozen plants has a tendency to restore them, but I am fully persuaded that, through ignorance of the nature of such application, it is seldom performed with that degree of success which it is capable. Heat, or caloric, exists in two states, viz., latent and perceptible; when any two sub-

stances of different temperature, come in contact with each other, the temperature of the one is raised, and that of the other is lowered, until the two substances become equal, and if they are of equal density, the temperature will be a mean one—this is provided that neither of these substances, undergo a change from solid to fluid, or from fluid to gaseous. In this case, a great quantity of perceptible heat will be consumed, and converted into latent heat; and if the change is from gaseous to fluid, or from fluid to solid, perceptible heat will be produced from the giving off of the latent. Thus, if equal weights of ice at 32, and water at 172, be mixed together, the whole of the ice will be melted, but the temperature of the mixture will be 32, so that 140 degrees are lost, or converted into latent heat.

If a tender plant that will not bear the frost, a *Pelargonium* for instance, be exposed to an atmosphere of 32, or exactly the freezing point, it will not be injured, but if the temperature sink below that point, say 28, under ordinary circumstances, when the least circulation of air is, the juices of the plant will be frozen, and it will be injured by the application of perceptible heat, in its rising from 28 to 32; but if the temperature when at 28 is raised by the freezing of water, when the act of freezing, by giving off latent heat, raises the temperature to the freezing point, the plant is uninjured. It follows, therefore, that the application of water should commence before there is any alteration in the temperature of the surrounding atmosphere, that is, in a morning before the sun rises, or before a fire is put on, and continued until the temperature is raised to the freezing point; but if the temperature of a greenhouse should be sunk to 28, and a slight syringing of water applied, only sufficient to raise the temperature, by the congelation of its particles to 32, a great injury will be sustained; if left to rise afterwards by perceptible heat to 32, as the agitation which will have taken place amongst the plants, will have more effectually frozen their juices. The water which is used, should not be much, if any, above the freezing point, or as cold as can be procured, so that the temperature of the plant should rise from 28 to 32, not by the application of a warmer substance so much as the converting of latent into perceptible heat. It is also of very great consequence that the leaves or no part of the plant should be moved when in a frozen state, as the cellular tissue, of which they are in a great measure composed, being of a very delicate texture, each cellule being filled with watery juice, which becomes frozen, the least bending of that part of the plant would rupture the membrane, which are only (and in many cases not quite) elastic enough to allow of the expansion of the water by freezing; it is, therefore, obvious that

instead of the water being laid on by a heavy rose, as I have sometimes seen, it should be done by a very fine syringe, like a shower of dew.

Being pressed for time, and not wishing to take up too much of your valuable pages, I have put the above ideas (the result of experience) in as condensed a shape as possible, but I hope not too much so to be understood.

ARTICLE III.—ON THE PROPAGATION OF CAPE HEATHS.

BY A PRACTICAL HEATH GROWER.

A GENUS so interesting, and we may say so long fashionable, must necessarily have early attracted the attention of plant cultivators; and from the profusion of flowers which most of the species produce, and their parts of generation being for the most part so perfect, we need not be surprised at the many hybrids which the care or curiosity of the cultivator have produced.

Heaths, like most other plants, propagate themselves from seed, although most of those cultivated in this country have hitherto originated from cuttings. A considerable portion of them ripen their seeds with us, and these are annual importations of seed from the Cape: particular care should therefore be taken in raising them, for there is a great probability of new varieties being produced, especially from seeds produced in the heath houses of this country.

Propagation from Seed.—The time we would recommend for sowing heath seeds is late in February, or early in March.—By sowing them at this season, we can always have the young plants sufficiently strong to stand the following winter. The size of the pots should be according to what quantity of seed you have to sow, as we consider it best to sow only one sort in a pot. The pots should be filled at least one half with broken pots, so as to have them well drained. The upper part should be filled to within one-fourth of an inch of the top with very sandy peat, and the surface made smooth. Upon the surface so prepared, the seeds should be thinly sown regularly all over it, and scarcely any covering put over them; this precaution is absolutely necessary from the circumstance that heath seeds are very small, and unable to push through a deep covering. The pots so sown should then be placed in a cold frame under glass, where they should remain; and if the weather should be very dry and much sun, they should be shaded with a mat. This shading should be continued constantly during sunshine, until the plants be from half an inch to an inch high, afterwards it should be gradually removed to harden them by degrees. For six or seven weeks the surface of the mould must never be allowed to become dry

but daily examined, at the end of which time the seeds may be expected to have vegetated; some seeds, of course, do not vegetate so soon as others, therefore the pots should still be carefully attended to; but after three months or little more, all hopes of their vegetation may be given up. As soon as the seeds begin to vegetate, the frame should have a little air admitted to prevent damp, and this should be increased as the young seedlings gain a little strength. Whenever the plants are sufficiently large to bear handling without injury, they should be potted out into small sized pots, well drained, always putting five or six into the same pot, particularly near the edge. In taking the young plants out of the seed-pot, great care is necessary that they be not injured; and when the whole (*or as many as is wanted*) is thus potted, they should be very carefully watered with a fine rose watering-pot, and then kept for ten days or a fortnight in a close shady place, after which they should be placed upon shelves in the heath-house or greenhouse, as near the glass as possible, that they may enjoy plenty of light and air. Here they should be shaded for a few hours in the heat of the day, if there happen to be much sun at the time. In this state they are to stand till the spring, and to be regularly watered and kept free of damp, which at this season is their greatest enemy.

Propagation by Cuttings.—Cuttings of heaths may be put in at any time when the young wood is taken, after it has become sufficiently firm so as to prevent its damping off; many of the sorts will be in a proper state in the months of May, June, and July. The length of the cuttings must depend on the habit of the species of some of the free growing sorts, they may be about an inch and a half long; and from others that are of a more stunted growth, they may not exceed half an inch in length, in both cases they should be taken from the plant at the part where the young cutting starts from the old wood; strip off the leaves nearly half the length of the cutting, place the cutting on the nail of the thumb, and with a sharp knife cut off the small end close to the joint or place where it was pulled off the plant. The pots for the reception of the cuttings should be about eight inches in diameter at the mouth, they should be filled at least five inches with broken pots, the upper part of which should be of a smaller size than those below, over which should be placed a thin layer of fog (hypnum) to prevent the mould from working down among the draining. The pots should then be filled to within one inch of the mouth with very sandy peat, and the remainder filled to the level of the edge with fine sifted pit sand, and the whole pressed firmly down. After being watered, the pot is then

fit to receive the cuttings. When more than one sort is put into a pot, care should be taken to select the kinds as near of a habit as possible; unless this is attended to, some sorts will be found to strike root in a much shorter time than others, which makes it inconvenient when potting them out. When the pot is filled with cuttings, it should be well watered with a fine rose watering-pot, and placed in a close shady part of the stove as much away from fire heat as possible, and admitting no air near to the spot where the cutting pots are placed; likewise taking care never to allow the surface of the mould to become dry. Where there is not the convenience of a moist stove, an exhausted hotbed frame, where there is very little bottom heat, will be found to answer as well if not better. We do not consider bell-glasses at all necessary in any of the above-mentioned situations, unless it be for some sorts that are very difficult to strike, such as *Erica aurea*, *taxifolia*, &c. or where the situation in which they are placed is very dry and airy. If glasses are used, they will require to be wiped almost every day, to prevent any damp from injuring the cuttings. And when they have struck root, which will be easily known by their beginning to grow freely, the glasses should be removed gradually some time before they are potted out. When the cuttings are rooted, they should be potted out singly into the smallest sized pots, and afterwards treated in the same way as recommended for seedlings.

Young Heaths, either from seed or cuttings, should never be potted out later in the season than the beginning of September; if potted out after that period, they have not time to get established in the pots before the following winter. The soil best suited for the first potting should be one-half peat, and one-half sand, always taking care to drain the pots well with small pieces of broken pots or bricks.—Cuttings that are not rooted before the beginning of September, should be allowed to remain in the cutting-pots till the following March, after which they should be potted out, and treated in the same manner as already recommended.

ARTICLE IV.—ON THE CULTURE OF GERANIUMS.

BY MR. THOMAS APFLEBY,

Gardener to George Young, Esq. Shenf House, near Sheffield.

HAVING promised you a paper on the Culture of Geraniums, I shall now endeavour to fulfil my engagement.

I employ the term "Geranium" as being most popular, though the proper botanical term is *Pelargonium*. English, *Stork's Bill*

(*Pelargos*. Stork) the fruit or seed having a beak like a Stork's bill. As this is an extensive genus comprising nearly three hundred recorded species, and *five hundred* varieties, and as the same culture will not answer for them all, I find it necessary to divide it into three Species.

1. Species that have tuberous Roots.
2. Species that have not been hybridized.
3. Species that have been hybridized.

1. Species that have tuberous Roots.

These have thick fleshy tuberous roots, and some species have short stems, but the greater part have no stems, the leaves and flowers springing immediately from the roots. Some are exceedingly beautiful, as *P. longiflorum*, *niveum*, *Lecanum*, *undulaciflorum*, *roseum*, *astragalifolium*, *asarifolium*, *dipetalum*, &c. &c. All of them are pretty, and where there is convenience are well worthy of cultivation. Unfortunately, they require considerable care to cultivate them successfully, and hence they are much out of fashion, which I am sorry for, as I am pretty certain if they were better known, and oftener seen, they would be more in request.

A good greenhouse is the best situation for them during winter and spring; when in a growing state, they should be as near the glass as the arrangement of the house will admit. Plenty of air must be given on all favourable days. They should be frequently syringed with cold water, and be smoked with tobacco, whenever insects make their appearance.

During the growing season, they require watering pretty freely, but as soon as they have done flowering, and their leaves begin to turn yellow, decrease the quantity of water gradually; the best method to do this will be to water once in three days, then once a week, then once a fortnight, and lastly, once a month, by which time they will be completely at rest, when no water must be given to them till they begin to grow again, which may be looked for about February or March. When at rest, any situation where they can be kept moderately dry and cool, will do for them. Heat, light, and moisture not being necessary.

The best time to increase this section of *Pelargonium*s, is just before they begin to grow. Take off a small tuber or two where they can be spared from each plant, and pot them into as small pots as they can be placed just to cover them; place them in gentle heat, giving but little water until they begin to grow, when they may be removed among the established plants, and the ordinary culture given; they may also be increased by seed, which, however, they do not produce so freely as the shrubby species.

The best soil for those plants is an equal mixture of loam, peat soil, and dung; they require also well draining, by placing plenty of broken potsherds at the bottom of each pot at least one inch thick.

2. Species that have not been hybridized.

Many of those species also are rather difficult to cultivate, and in consequence are comparatively scarce; but if the following directions are attended to, I trust the difficulty will be surmounted.

The species under this head are represented by *Pelargonium tricolor*, *bicolor*, *elatum*, *pendulum*, *tetragonum*, *fulgidum ovate*, *elegans*, &c. &c.

As they are all shrubby species, they require watering all the year, though always carefully, for if the soil gets sodden with water for a length of time, it is generally fatal to the plants. They also require greenhouse treatment during winter and spring. In summer they require placing out of doors in an open situation, screened from high winds, and set upon a bed of ashes so thick as to prevent worms from getting into the pots; keep them clear of weeds, tied up neatly, and regularly watered during dry weather. Pot them into larger pots when they require it; the best season for which operation is the month of April.

The compost I have found them to grow best in, is loam, peat earth, vegetable soil, and sand in equal parts.

To propagate them, take youngish cuttings off about the month of May; fit some bell or small hand-glass to such a number of pots as may be required; fill them half full of broken potsherds, rough bits of turf, or any thing that will permit the water to pass off freely; put in upon them as much of the compost as will fill the pots up to one inch of the rims, and fill up to the top with pure sand, then give a gentle watering, and insert the cuttings, giving more water to settle the sand close and firm to them. When pretty dry, cover them with the glasses, and place them in a gentle heat; pot them off when struck, and keep them close and warm until they have struck root again; then give them the ordinary treatment, as to situation, air, watering, potting, and so forth. Some of this section seed also, but not freely.

(To be concluded next month.)

ARTICLE V.

A FEW REMARKS ON THE MANAGEMENT OF THE GENUS CRINUM.

BY MR. HENRY SANSOME,

Gardener to the Rev. E. T. Hulliday, North Town, Taunton, Somersetshire.

HAVING successfully cultivated many species of the beautiful genus *Crinum*, I am solicited by many of your readers to forward you my method of cultivation, which should you consider it worthy insertion in your valuable Magazine, it is at your disposal.

The greater part of this genus being inhabitants of hot countries require the stove in order to their success, and a liberal supply of water during the summer months; but during winter, the quantity of moisture should always be diminished, otherwise many of the bulbs will perish. I find, however, those with columnar stems, do not object to plenty of moisture at all times, as the habit of their leaves is more decidedly perennial; but it is by far the best, at all times, to rather underwater than overwater, and particularly those varieties which are of tender growth.

The compost I find the best for *Crinums* generally, is a rich yellow loam, rather of a friable texture; many cultivators of *Crinums* use peat in the compost, but I consider it very prejudicial; plenty of drainage in the pots I consider very essential, so that the plants may often receive the proper nourishment of fresh water—the size of the pots much depend on the habit of the bulb—but in order to bloom them well, they require plenty of pot room when in a healthy state. Whenever the youngest leaves of any *Crinum* with a sprenial bulb turn yellow and decay, the bulb should be allowed to go to rest for a short period; too much moisture in too low a temperature, will often produce this effect. In potting, the whole of the column should be kept above the soil, and all the obsolete coats, which are the base of decayed leaves, should be gradually stripped away, leaving the bulbous stem smooth and clean. I find nearly the whole genus to succeed the best when plunged up to the rims of the pots in troughs of sand, which are fixed over the flues; and during very hot weather, I find it very essential to inundate the troughs, but not to keep them constantly flooded; some of the species at the approach of winter, will require the pots to be turned on their sides, and to be kept perfectly dry. As soon as the plant has completely ceased to vegetate shake the earth carefully from its bulb, pull off the decayed coats without making the bulb bleed, and repot it in dry pulverised loam, and let no water be given till the spring. My minimum heat is 65 Fahrenheits, and maximum from 80 to 90.

If the preceding hints be strictly adhered to, success will follow. I have many other exotics doing equally as well as the *Cyrtums*, which, should you consider the same worth recording, I shall feel great pleasure in forwarding for insertion.

ARTICLE VII.—REMARKS ON THE CULTURE OF FUCHSIAS,

By Mr. William Barratt, St. John's Botanic Gardens, Wakefield.

By my former communications you will easily perceive, that I have paid some attention to that beautiful genus of plants, *Fuchsias*. I have this season added to my stock several very splendid varieties, and intend shortly to give you a continuation of the name, habit, and description of the new ones, to those of mine you have already published in the *Floricultural Cabinet*, for the last two years. The hint I wish to give you at present on *Fuchsias*, is, their arrangement in the beds, in order to produce, shall I say, one of the most splendid beds of beautiful and graceful flowering shrubs our gardens can boast of. The shape of bed most suitable is an oval one, say five feet across, and eight feet in length; plant in the middle of the bed some of the tallest growing kinds; in the next row round, some middle sized ones, weeping kinds; next row should be the several varieties of Globe *Fuchsias*; and another row dwarf kinds,—and then complete the bed with an edging of *Fuchsia reflexa*, and *Fuchsia microphylla*, planted alternately. The plants when planted, should be in the middle two to three feet high, and the other rows gradually less in height; the edging should be about four inches in height. Although they will not all exactly grow proportionately to their heights when planted, yet they will do something near it, and if planted out in April, or early in May, in rich soil, and a little peat mixed, the effect will surpass the expectation of most people.

ARTICLE VIII.—ON THE CULTURE OF HOYA CARNOSA,

By S. W. E. SMITH, LYMINGTON, HANTS.

In a former Number of the *Cabinet*, "Pedro" wishes to know the treatment of the *Hoya carnosa*:—I have a beautiful plant, whose branches are nine feet long, and covered with large bunches of its lovely flowers, dropping their delicious juices upon other plants. It is trained across the greenhouse windows; is potted in a mixture of equal parts of sandy loam, yellow loam, and good manure. I keep it nearly dry all the winter, and in spring and summer water plentifully every two or three days with good manure water. I have struck

three young plants since May. I take off the cuttings at two joints, and insert them in the same compost, kept a little moist, shaded and stimulated by the heat of the cucumber frame. They can be struck from single leaves only, but I have never tried the experiment.

ARTICLE VIII.—ON THE CULTURE OF PINKS.

BY A PRACTICAL GARDENER.

THIS Flower, though it has nothing mysterious in its cultivation, has furnished some authors with so large a subject to write on, that they have composed whole Volumes on it. They have discovered wonders in every particular, even to the least action they imagined within themselves that nature wrought in these flowers, which has carried them to very prolix considerations thereon, and to reflections rather chimerical, than backed with the least appearance of truth.

Works of this nature in point of instructions, are of the number of those we call specious; and where the authors, by endeavouring to make out too plainly what they advance, are lost in imagining spaces, and puzzle themselves more and more.

To what purpose is it to make a wonder of a thing that is all natural, plain and easy? Can they believe, that the shortest way to instruct, is to descend into particulars, which, far from encouraging us to cultivate a flower, disgust us rather, and dishearten us from it? Besides that, these pretended rules are most of them merely visions, and arguments good for nothing but to swell a volume; nor can any advantage be gained from them: We, therefore, without further preface, will come at once to the point.

To follow the natural Order in the culture of Pinks, reason requires us to begin, by giving rules for the method of sowing them, since seed is the first principle of all vegetables.

Without going so much about the bush, to come to the method of sowing of Pinks, I say, we sow them in the naked earth upon hot-beds, or in pots of earth, or wood, in autumn, or in the month of March.

We sow them in the naked earth, having first traced out a bed according to the rules of gardening, and of the size we think fit; upon which, we scatter mould at least an inch thick, but, not till after we have made the earth as tangible and easy to work as possible.

If it be upon a hotbed, we need use no other ceremony; for the mould that is there will be enough of itself, having a sufficient quantity of salts to give this plant its requisite growth for planting.

But, if we make use of the pots of earth, or of wood, we must fill the bottom of them with a good kitchen-garden earth well sifted, and lay over it at least an inch thick of mould; this unixture pleases not some, who have written on this subject: but experience having more fully convinced me than all their empty discourses, I pretend to lay it down as an infallible rule.

The pots and garden-plots, where you intend to sow your pink-seed, being ordered in this manner, you may scatter it thinly over them, or sow it in rows drawn by the line, I mean as to the bed; for, as to that you sow in pots, it must always be sowed scatteringly, and never in rows. When this seed is sown, take care to cover it forthwith, either with a rake, or with your hand.

Having done this, water it immediately to the end of the mould, which is naturally light, may cleave the closer to it, better cherish the burgeon, and make it sooner take the requisite dispositions to become a plant of its kind. In order to the obliging it to do this, likewise take care to sow the seed in places exposed to the sun, and to carry the pots where you have sown any into such places also.

You should always have a good stock of pink-seed, that you may sow a great deal of it: For, a true florist should never give himself this trouble, but with a design to have some that are worth his raising: and it often happens, that among a thousand plants we have scarce three or four that are worth our care, though indeed we have sometimes more. When these plants are come up, they require to be frequently watered.

The Pinks sown in this manner, being come to a growth fit for planting, we prepare beds for them; along which, we draw drills by the line, four inches distance from one another; and observe the same in planting the Pinks.

The usual season to plant Pinks from the seed, is always about the end of March, or the beginning of April; and the Pinks thus put in the ground, grow till the next year without producing any flowers: but, after they have weathered out the winter in this condition, provided we have taken care to protect them from the severity of the frosts, by covering them with straw, we see them pullulate, and shoot forth slips from the foot; and from the midst of most of those slips, rise some stalks that bear flowers, and others that serve only for layers.

As soon as we have planted our Pinks from the seed, we take care to cover them in the day-time, with screens of straw laid ridge-wise over them, or with some piece of cloth stretched out over them in the same manner: to hinder the heat of the sun from coming too soon to

the roots, and over-heating them; which would much retard their taking root again. And, we must not neglect to cover them in this manner for the space of seven or eight days, unless the weather should be rainy, which would save us that trouble: we must also not forget to uncover them every evening, that they may have the benefit of the freshness of the night, which, in that season is very propitious to plants.

In the next month of the following year, when the Pinks are blown, we take a view of all that are planted, and have any flowers; and, if any of them have finer flowers than ordinary, we put some mark upon them, that we may have layers from them for increase, which is one of the three ways in use to multiply the kind. This first method of perpetuating Pinks, is properly speaking, a nursery.

Next to the seed, which is the first way of increasing the kinds of the Pink, comes that of the layers; to succeed wherein, you must follow the rules I am about to give you; but I presume that your Pinks are worth preserving, and that your slips come from valuable stocks.

If so, take a penknife, or some other instrument of like nature that cuts sharp, and, making choice among all the slips of the Pink, of that whose stem is strongest and fairest, make an incision in it through the middle of the nearest knot, to the foot of the plant, taking care that this incision go no farther than half, or, at most, than two-thirds of the knot: having done this, lay the slip gently down, fasten it with a little crooked stick, support it with another little stick, if you lay down your slips in the naked earth, for if it be in pots, the edges of them are sufficient to support them: then having covered with a little mould the part that is in the ground, water it well, and let it alone till it require your farther care.

If it be in the naked earth that you lay down your layers, you must for the first three days take care to cover them, to keep them from too much sun, which at first would do them mischief: and if it be in pots, set them for the like number of days in the shade, and bring them afterwards into an aspect, that will make them act more vigorously.

The layers ought to have taken root about the eighth or twelfth of September at latest; which is what you must take care to see: and if you find they have not, or that they have shot out only little fibres that can scarce be seen, you must get ready a bed of reasonable heat, and put in it the pots of the layers that have not yet taken root: this warmth is such a friend to the plants, that it never fails to actuate and give life to the parts that are disposed to shoot out the roots.

Indeed the layers that are in the naked earth have not this advantage; for which reason too, more of them die away than of those that are in the pots. but on the other hand, this does not always happen; and I myself have seen layers that had not retaken root within that time, lie in that condition in the naked earth all the winter, and take root towards the end of March, which is no small evidence against such as are over-cautious in the management of Pinks.

Among all the productions that a stock of a Pink produces, there are always some of them that are much less than the others; and these are they we leave to keep up the chief stock.

Now since the earth in which we set the layers is generally light, and by consequence unprovided of any large store of moisture; you must be careful to water the layers very often, and not to expose them to too great a heat.

I wonder why the name of suckers has been given to that part of the Pink we cut off, and that has no root; and why it was not rather called a slip, which is always taken for a small rootless branch of a plant, and which we thrust into the earth to make it take root: but in point of art we must always conform to the custom that has been long established: I say then that the third expedient made use of to multiply Pinks is by the suckers, which is performed in the following manner.

Consider your pink-stock, and having cast your eyes over it, resolve within yourself which suckers you will make use of: the middle sized are always the best: when you have done this, take your scissors, and cut off your suckers within two or three joints of the middle, which is the place whence the leaves spring out; and take care it have no more: when you have thus cut it off, slit it into four, by the lower end to the joint next that end, and from thence guide that incision to the second joint, and having taken off the tops of its leaves o within three inches of the middle of the sucker, throw it into the sun to make it wither a little: when you see it begin to languish, take it again and throw it into fresh water, and leave it there till you see it has recovered new vigour; then take it out of the water, and having your pots of earth or wood ready, and filled at the bottom with kitchen-garden earth, covered over with at least two inches of mould, thrust in your suckers to the second joint, press down the earth a little against the part you thrust in, water it plentifully, and set your suckers in the shade: do this, and I will answer for the success.

(To be continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *BANKSIA OCCIDENTALIS*, West-Coast Banksia. (Bot. Mag., 3335.) Natural Order, Proteaceae; Class, Tetrandria; Order, Monogynia. A very neat and handsome species of this very singular tribe of plants. Both foliage and flowers are pretty; the latter are of a dark red colour. *Banksia*, in honour of Sir Joseph Banks.

2. *BRASSAVOLA CORDATA*, Heart-lipped. Orchidaceae; Gynandria; Monandria. (Bot. Reg., 1914.) There is nothing very striking in the flower of this species of Epiphyte. The petals are of a greenish-yellow colour, very narrow, and about one inch long; the labellum is half an inch long, and the same breadth, heart-shaped—white. The plant is a native of Brazil, and was imported from thence by Messrs. Loddiges, in whose collection it has bloomed this year. The species is very nearly allied to *B. nodosa*; the flowers are only half the size of that species, and having a heart-shaped labellum. *Brassavola*, in compliment to A. M. Brassavola, an Italian Botanist.

3. *BROUGHTONIA COCCINEA*, Crimson Flowered. Orchidaceae; Gynandria Monandria. (Bot. Mag., 3336.) Synonyms, *Dendrobium sanguineum*; *Epidendrum sanguineum*; and *Broughtonia sanguinea*. The flowers of this species of orchideous plants, are said to be, by Dr. Hooker, the richest coloured of any of this splendid family of plants. It is but rare in the collections in this country, though introduced, from Jamaica, to Kew Gardens, 1793. The plant usually blooms from May to July. The flower stem rises about ten inches high, bearing a raceme of, from six to ten, very rich crimson coloured flowers, continuing in bloom a long time. Each flower is upwards of an inch across. It is a very desirable species, and well deserves a place in every collection. *Broughtonia*, in compliment to A. Broughton, a Botanical Author.

4. *CATLEYA INTERMEDIA*, VAR. *PALLIDA*, Pale-flowered. Orchidaceae; Gynandria; Monandria. This species has bloomed in the collection of the London Horticultural Society. It is a native of Brazil. Mr. Tweedie remarks of it, "This is by far the handsomest of the tribe found in the neighbourhood of Buenos Ayres, and grows equally well on the sea beaten rock, and the moss covered tree in the heart of the forest, and is to be found in bloom at all seasons. There are many varieties of it; their colour pink and crimson." The present variety is very beautiful. Each flower is about three inches across. The sepals and petals are of a pinkish-white colour. The labellum is three lobed, the centre one feathery at the summit, and terminating with large stripes and spots of a deep crimson, finely margined with white. The following fine species have been described by Dr. Lindley:—*Catleya bicolor*, native of Brazil; sepals and petals of a tawny colour; the labellum is of a bright purple and white. *C. coccinea*, native of Brazil, a very beautiful flowering species. The flowers are about three inches across, of a bright scarlet colour. The flower stems rise about three inches high. This latter circumstance connected with its brilliant coloured blossoms, render it a most striking and very desirable species. *C. Harrisonia*, a native of Brazil, producing from one to four flowers on a raceme. *C. maritima*, a native of Buenos Ayres, producing three flowers on a raceme, of a fine rose colour. *C. orata*, a native of Brazil, very much resembling *C. labiata*. Messrs. Loddiges possess a fragrant species with crimson flowers, which was discovered by Mr. Schomburgh, in British Guiana.

5. *CRATEGUS GLANDULOSA*, VAR. *MACRACANTHA*, Long spined glandular Hawthorn. (Bot. Reg., 1912.) Rosaceae; Icosandria, Pentagynia. Synonyms, *C. glandulosa*; *C. macracantha*. A very fine variety of American Hawthorn, of a vigorous habit, producing a profusion of deep vermilion red berries, in clusters, and which make a very showy appearance. The foliage is of a dark green. The spines are from three to four inches long.

6. *DROSERA FILIFORMIS*, Narrow-leaved Sun-dew. *Droseraceæ*; *Pentandria*; *Pentagynia*; *Synonym*, *D. tenuifolia*. A native of New Jersey, where it was discovered by Mr. Macnab, and by him introduced to the Edinburgh Botanic Garden. It has bloomed in the Comely Bank Nursery, and in the stove at Dr. Reill's. The flower stalk rises eight or ten inches high, producing a raceme of ten or twelve flowers, rose coloured, each flower about half an inch across. *Drosera* from *drosos*, dew; referring to the clear fluid which exudes from the foliage, and appears as if covered with dew.

7. *EUTOCA WRANGELINA*; Baron Wrangel's *Eutoca*. (*Brit. Flow. Gard.*, 362.) *Hydrophyllæ*; *Pentandria*; *Monogynia*. This pretty flowering annual is a native of New California, and has very recently been introduced into this country. It has bloomed, this summer, in the garden of A. B. Lambert, Esq., Boyton House, Wiltshire. The plant is of ready culture, growing freely in the open border, and blooming for several months, and has a peculiarly neat appearance. The cymose heads of pale-blue blossoms being showy; each blossom is about half an inch across. *Eutoca*, in compliment to Baron Wrangel, a Swedish Nobleman.

8. *GENISTA MONOSPERMA*, Single-seeded. (*Bot. Reg.*, 1918.) *Leguminosæ*; *Diadelphæ*; *Decandria*; *Synonyms*, *Genista monosperma*; *Spartium monospermum*. It grows wild in Sicily, Barbary, Greece, at Gibraltar close to the sea-beaten rocks, where, in February, it blooms in vast profusion. It is said to be one of the most deliciously fragrant blossomed shrubs yet discovered. The flowers are white. *Genista*, from *genu*, the knee; branches being flexible like the knee-joint.

9. *INOPAGON BAXTERI*, Mr. Baxter's. *Proteacæ*; *Tetrandria*; *Monogynia*. (*Bot. Mag.*, 3539.) A native of New Holland, from whence it was sent to the Edinburgh Botanic Garden, in 1830; it has bloomed in the greenhouse at that place. The foliage is very handsome, much resembling *Grevillea acanthifolia*. The heads of flowers are rose coloured, with darkish tips. The plant usually grows about two feet high. It is a pretty greenhouse shrub.

10. *MALVA MUNROANA*, Mr. Munroe's Mallow. (*Bot. Mag.*, 3537.) *Malvaceæ*; *Monadelphæ*; *Polyandria*. It was introduced into this country by the late Mr. Douglas, who discovered it growing on the barren plains of the Columbia, in North-West America. It will bloom freely when grown in the open air in this country, and a warm and sheltered situation be selected for it; it will then bloom from July to October. If cultivated in the greenhouse, it blooms from May. Each flower is near an inch across, of a pale rose colour.

11. *NECTAROSCORDUM SICULUM*, Sicilian Honey Garlic. (*Bot. Reg.*, 1913.) *Liliacæ*; *Hexandria*; *Monogynia*; *Synonym*, *Allium siculum*. A hardy bulbous plant, discovered in the shady woods of Sicily; nearly thirty flowers are produced in each umbel; they are of a brown, purple, rose, and white intermixed, each flower is more than half an inch across; it is more interesting than showy. *Nectaroscordum*, from *nectar*, honey; and *skordon*, garlic.

12. *ORNITHOGALUM CONICUM*. Pure-white flowered Star of Bethlehem. (*Bot. Mag.*, 3538.) *Aphodelæ*; *Hexandria*; *Monogynia*. A native of the Cape of Good Hope, from whence, Baron Ludwig sent bulbs to the Glasgow Botanic Garden, in 1835; the same year it bloomed in the greenhouse. The flower scape rises about one foot high, terminated by a raceme of flowers, at first conical, afterwards more elongated. The flowers are of a pure white, each near two inches across, making a showy appearance. *Ornithogalum*, from *ornis*, a bird; and *gala*, milk. The plant producing much when bruised.

13. *PHLOMIS ARMENIACA*. Armenian Jerusalem Sage. *Labiata*; *Didynamia*; *Angiosperma*. (*Brit. Flow. Gard.*, 364.) A hardy herbaceous perennial plant, with flower stems rising about a foot high, producing numerous fine yellow blossoms, which have a neat and elegant appearance, being large showy. The plant was introduced into this country in 1834, from Armenia, where it was found growing on dry stony hills. It well deserves a place in the flower garden. It is grown in the Chelsea Botanic Garden. *Phlomis*, from *Phlogmos*, a flame; the down used for candle wicks.

14. *PRESCOTTIA COLORANS*, Purplish Prescottia. (*Bot. Reg.*, 1916.) *Orchidaceæ*; *Gynandria*; *Monandria*. A stove herbaceous orchideous plant from Brazil, and imported by Messrs. Loddige. The flowers are produced in a dense

manner, upon a spike of six or eight inches high, something in the way of the common Plantain—they are of a yellowish-green. *Prescottia*, in compliment to John Prescott, Esq., of St. Petersburg, a celebrated Botanist.

15 *RATIBIDA COLUMNARIS*, VAR. *PULCHERRIMA*, Painted-rayed. (Brit. Flow. Gard., 361.) Compositæ; Syngenesia; Polygamia Frustranea; Synonymus, *R. sulcata*; *Rudbeckia columnaris*; *R. Tagetes*. The late Mr. Drummond discovered this hardy perennial plant growing in Texas, from whence he sent seeds into this country. It is found frequently growing on the margins of rivers throughout the western regions of North America. The present showy variety has been raised by Mr. Miller of the Bristol Nursery. The flower stems rise from two to three feet high, each crowned with a splendid flower, three inches across. The disk of the flower has a large portion of a fine velvety crimson and brown colour; the exterior part of a fine yellow. Altogether it is a very splendid flowering, and deserves a place in every flower garden.

16 *SISYRINCHIUM GRAMINIFOLIUM*, VAR. *PUMILUM*, Dwarf grass-leaved. (Bot. Reg., 1915.) Iridacæ; Monadelphia; Triandria. This very neat and beautiful flowering plant was discovered on the mountains near Valparaiso and Concepcion; a plant of it has been sent to Robert Mangles, Esq., Whitmore Lodge, Summing Hill, Berkshire; in the very select collection of that gentleman it bloomed in May 1836. The flower stems rise near six inches high, producing a profusion of flowers, each of which is near an inch across, of a pretty yellow, with a deep purple spot at the base of each petal. The plant requires protection during winter in a cool frame or greenhouse. *Sisyrinchium*, from *Sesurichios*; an old Greek name for the Iris *Sisyrinchium*.

17. *STACKHOLMIA MONOGYNA*, Pink tipped. (Bot. Reg., 1917.) Stackhouseaceæ; Pentandria; Monogynia. A half hardy perennial herbaceous plant, a native of New Zealand, from whence it was sent by Mr. James Backhouse to the York Nursery. The flowers are produced in a dense spike. The petals are very narrow. Each flower is nearly half an inch across. The tips of the spikes are of a bright pink, but when the blossoms expand they are pure white. *Stackhousia*, in honour of the late John Stackhouse, Esq., F.L.S., of Pendarvis, in Cornwall.

18 *VERBENA LAMBERTIA*, VAR. *ROSEA*. Drummond's Pink Flowered Verbena. (Brit. Flow. Gard., 363.) Verbenacæ; Didynamia; Angiospermia. This very pretty flowering variety was discovered by the late Mr. Drummond, in Texas, and is cultivated in this country under the name of *V. Drummondii*; the plant appears to be only a variety of *V. Lambertii*. The flower stem rises to half a yard high, terminating in a spike, from three to six inches long, of fragrant flowers, which are pale rose coloured. When grown vigorously it is a very handsome variety. It delights in a fresh loamy soil, well enriched with manure or leaf mould. The plant is quite hardy and easily increased by slips. It may be obtained at most of the principal Nursery Establishments.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE CULTURE, &c. OF CACTUSES.—In the month of August, 1835, I addressed a Query to the Editor or Correspondents of the *Floricultural Cabinet*, requesting information as to the name and treatment of a number of small Cacti, which I then described thus. They were raised from seeds, and originally appeared with flat leaves like the *Cactus speciosa*, but have since made shoots which are both hexagonal and octagonal, covered with hairs, each shoot having the appearance of being twisted, they are now three years old. The specific name and mode of treatment to make them bloom freely, is what I request information upon, and shall feel much obliged to any one who will kindly answer me.

ON THE CULTURE OF CYCLAMENS.—A subscriber to the *Cabinet* would feel himself extremely obliged if any correspondent would inform him of the best method of growing the Sweet Scented Cyclamen. I purchased several roots in bloom three years ago, but have not had the pleasure of witnessing a single bloom on them since. By giving this assertion in your next number, you will still further oblige yours, &c.

ALFRED.

December 13th, 1836.

ON PANSIES.—Can you or any of your Subscribers, inform me where, near Sheffield, I can procure the following Pansies, and at what price, viz. Royal Crimson, Ever Beauty, Robinson's Princess Victoria, and Jane Ann's Favourite. Near Sheffield, Dec. 13th, 1836.

AN ADJUTANT OF THE CABINET.

ON SOWING SEEDS OF ANOMATHECA CRENTA, &c.—A Subscriber has been anxiously awaiting an answer in your *Cabinet* to the question asked in the October publication, relative to the management of the Seeds of the *Anomatheca crenta*, and if likely to blossom the same year? Perhaps Mr. Harrison himself would be kind enough to give an answer in his next Number, as the season may soon be too late to take advantage of the knowledge required.

December 6th, 1836.

The seeds should be sown as early as there may be the convenience of giving them a warm and moist temperature, as a cucumber or melon frame, or pine stove. The pot should have an inch deep or upwards of drainage, in a rich, light, sandy soil; we have found the plants to grow very vigorously. When the plants are strong enough to take up out of the seed-pot, which will be when about two inches high, let that be carefully done to retain all the fibrous roots, insert one plant into a small sixty-sized pot, replacing the plants into the frame, to assist in re-establishing them; when they appear to be striking root afresh, give an increase of air, so that the foliage does not draw up weakly. In a short time they will require pots a size larger. When this is done, they may be placed in a cooler department, as a greenhouse or frame, where they can be protected till the middle of May, when, with balls entire, they may be planted in the open border, where they will bloom the same season. We had some which bloomed from the middle of July to the end of September. The situation was open to the sun, and sheltered from the East, West, and North winds.

CONDUCTOR.

ON THE DAHLIA.—Has any of the readers of the *Cabinet* tried the experiment of cutting the roots of two Dahlias, each into two parts, and then joining the two sorts together, that is, one portion of each kind being secured to a portion of the other. If this has been tried, I should be obliged by being informed what the result was in affecting the colour, &c. of the flowers. C. NEVILL.

ORNAMENTAL CREEPERS, &c.—I should be very much obliged, if some reader of the *Cabinet* would give a list of Ornamental Creepers, or climbing plants, suited to train against a wall, trellis, pillar, or arbour. A list of greenhouse, and one of hardy kinds, will confer a great kindness on

FLORA.

Notts, Dec. 13th, 1836.

ANSWERS.

ON DESTROYING THE WIRE-WORM.—In answer to an inquiry respecting Wire-Worms, contained in the October Number of the *Floricultural Cabinet*, I beg to send the following Extract from Kirby and Spence's Introduction to Entomology. "A very simple and effectual remedy for that destructive insect, the Wire-Worm, was mentioned to me by Sir Joseph Banks.—He recommended that slices of potatoes stuck upon occureers, should be buried near the seeds sown, examined every day, and the Wire-Worms, which collect upon them in great numbers, destroyed."

ON COMPETITION IN EXHIBITING TULIPS, &c.—In replying to the Query which was forwarded to us by Mr. Figgins, and inserted in the November Number, page 260, we give the following as our opinion. Supposing that distinct prizes are offered as follows:—The first Rose 20s.; second do. 15s.; third do. 10s.; and fourth do. 5s. In this case, A would be entitled to 20s. and C to 5s. In the same manner A would be entitled to 10s. in Billeman's, and 10s. in Bizards; and C to 15s. in Billeman's, and 15s. in Bizards. A would thus obtain 40s. and C 35s. From which it is evident that A has the advantage over C, in the first prizes, viz. 20 to 5, whilst C has the advantage in the second prizes over A of 30 to 20. If A and C were to compete where there were prizes only given to firsts and seconds, then the first would be obtained by A; but if no thirds were offered prizes, A would not be entitled for the third Billeman's, or third Bizards; C would not be entitled for the fourth Rose, but would claim the prize for the second Bib. and second Biz. Thus A would get the first prize, and C the seconds.

(None of our Correspondents having replied to Mr. Figgins's Query, and an answer being desired in the December Number, we have inserted our opinion of A and C's claims in such a competition.)

CONDUCTOR.

ON THE CULTURE OF CACTUSES.—A Correspondent requesting instructions on the Culture of the Cactus, I herewith send you some practical observations taken from the Horticultural Transactions, they are part of an excellent communication by Mr. Green, gardener to Sir Edward Antrobus, Bart.—"The compost that I use," observes Mr. Green, "is an equal quantity of light turfy loam, and pigeon's dung, and one third sheep's dung, exposing the mixture one year to the influence of the summer's sun and winter frost to mellow. When wanted for use, I add one third of sandy peat, in both cases mixing them well together. I grow the young plants from February to July, in the forcing flower-house kept from 55° to 60° Fahr. I afterwards remove them to a shelf in an airy situation in the greenhouse, exposed to the mid-day sun, giving them plenty of air and little water. The plants that I want to flower the following September, are placed in the forcing-house the first week in December, giving them very little water for the first ten days, and gradually increasing the water as the plants advance in growth. About the 1st of February I stop all the young shoots, which soon become well ripened; from this time I decrease the quantity of water until they become quite dry, in order to throw the plants into a state of rest. In the beginning of March, I replace them in a cold shady situation in the greenhouse, treating them as before. For plants to flower in August, I place a quantity more in the forcing-house the first week in January, treating them the same as those for September; only they are put to rest in the greenhouse a fortnight later, and replaced in the forcing-house one week sooner.—The first flowering plants are put in the forcing house the end of January, and will come in flower about the middle of March. When these plants have done flowering, and are removed from the drawing-room, or greenhouse, I prune out most of the old shoots that have flowered, so that the plants are furnished regularly with young shoots for flowering the ensuing year; these plants are also placed in the forcing-house for ten days, to ripen the young wood and dry up the moisture, and are then put to rest in the greenhouse as usual: such plants will flower a second time in October. Others put in the forcing-house the middle of February will flower about the end of April; if then pruned, and dried, and put to rest as before, they will flower a second time in November, and so on in proportion. I report them at all seasons whenever the plants may require it, always

observing to keep the pots well drained with potsherds, that the moisture may pass off readily. This process may be considered troublesome, but superior growth, and abundance of flowers, amply repay the care bestowed. By the above treatment, *C. speciosus* and *Jenkinsoni* have generally produced from ninety to a hundred fine expanded flowers, at one year old. The plants that I brought to the Society (May 21, 1833,) were about two years old; the *C. speciosus* bore two hundred flowers, *C. speciosissimus* seventy-two, *C. Jenkinsoni* one hundred and ninety-four. I prefer growing them in wooden tubs, with nice stakes fixed to the tub, to the usual mode of supporting them by sticks driven into the ball of the plant, which I consider injures the fibre, and makes the plant appear unsightly."

REMARKS.

ON THE CABINET NUMBERS, &c.—The *Floriocultural Cabinet* is unquestionably the most valuable Publication to the Amateur, as well as the practical Gardener, both rich and poor, its pages being open for questions and answers, which are both amusing and instructive. I have frequently seen questions in it which would seem at first sight but of little utility if answered, but in themselves of great importance, especially to the young beginner, and pleasing to all who have the pleasure of perusing it. The low price at which the *Cabinet* is charged, places it within the reach of every one who is anxious for improvement in the beautiful study of Horticulture. It is to be regretted that the Proprietor did not, when the *Cabinet* was first established, see the likelihood of so useful a Work rising to its present dignity, and have many more Numbers printed than was called for, as a friend of mine being anxious to possess the whole of the Numbers now published can only obtain 26 of them. We are informed by the Bookseller (who supplies me with the Number monthly) that the Numbers above named cannot yet be obtained, nor can he say whether they will be obtainable or not. You will therefore greatly oblige me and my friend by informing us in your next Number, how and when we are likely to get them.* We have not yet been favoured, as suggested by one of your correspondents, with Plates and description of Grasses. I feel confident that it would be of very great utility, as so little is known about Grasses, when so much is required, if a Double-Number were to be issued until a few descriptions on Grasses with plates were given. I do not think that any one of your numerous Subscribers would object to it, for myself I would rather give one shilling per Number, and have two plates and descriptions, when we could also have some of our good old-fashioned flowers represented.

Can any of your Subscribers inform me of a Grass or any other aquatic plant that would grow in an iron tank about 12 feet by 9, where lukewarm water is always running through it.

ESCHSCHOLTZIA.

Liverpool, December 14th, 1836.

ON NEW OR HANDSOME FLOWERING PLANTS.—*Tropaeolum brachysema*.—Last month we noticed, at page 295, a new species of *Tropaeolum*, the specific name of which we did not know. We have recently obtained information that it had been named by Dr. Lindley *T. brachysema*, to whom a flowering specimen had been sent, by G. C. Rashleigh, Esq. Hyde Lodge, Winchester, Hants. Mr. Rashleigh has received a considerable collection of roots, bulbs, and seeds, from Valparaiso, among which was seed of the *Tropaeolum*. It has bloomed in the collection of that gentleman, flowering very freely, of a pretty yellow, slightly streaked with a dark colour inside. The blossoms hanging in abundant clusters add very much to its beauty. The foliage is exactly like the *T. tricolorum*. The flowers are in form more like the common *Nasturtium* of the gardens, each flower being rather more than half an inch across. It is a very neat and

* * Complete sets of the *Cabinet*, from No. 1 up to the present one may now be had of Messrs WHITTAKER & Co. We had no idea, at the commencement of the *Cabinet*, that the demand would be more than one quarter of what it has reached, or we should have been better prepared to meet the wishes of our friends. The increased demand each month, and getting up back Numbers, has required great expense and exertions in the operations. We have much pleasure in announcing that we can now, and in future, meet the demand. CONDUCTOR.

pretty species, well deserving a place in every greenhouse. Plants of it have been sent to Mr. Thompson and Mr. Knight, King's Road, Chelsea, and Mr. Ingram, Southampton. Mr. Rasleigh has also flowered some other handsome *Tropaeolums*, differing in some particulars from *T. tricolorum*, and *T. elegans*. The collection contained some new specimens of *Phycella*, as well as a very sweet, night-scented, small flower, which is supposed to be *Leucocoryne odorata*.

Gardonia multiflora, Many flowered.—A very neat and handsome flowering species, requiring a greenhouse temperature. It is a shrubby plant, growing from a foot to half a yard high. It has very much the appearance of a neat plant of the *Fuchsias*. The flowers are produced in abundance, very similar to the *Epacris grandiflora*, they are about the same size and form, of a pretty rosy crimson colour. The foliage is fragrant. The plant deserves a place in every greenhouse use. It strikes freely, and may soon be had of most nurserymen.

Sedum Siboldi.—A new species from China, which requires to be grown in the greenhouse. The plant blooms profusely, and its fine scarlet flowers make a very showy appearance. It is propagated easily, and may soon be had of most of the public nurserymen.

Eutaxia pungens.—This is a very neat handsome and abundant blooming species, recently sent from New Holland, and is now spreading in the London Nurseries. It is a shrubby plant, growing from two to three feet high. The flowers are yellow with an orange red centre. The plant deserves a place in every greenhouse. It blooms freely during summer.

Clerodendrum speciosissimum, Showy flowered.—This fine flowering shrubby plant has very recently been introduced into this country, and is one of the most showy plants for the conservatory or greenhouse. The plant grows to four or five feet high, and produces numerous large spreading panicles of fine rich scarlet flowers. Each blossom is two inches across. It may be had of the public nurserymen, and it well deserves a place in every conservatory or greenhouse. We were informed, the plant had been introduced into this country by Messrs. Lucombe, Prince & Co. Nurserymen, Exeter.

Bignonia venusta.—A most splendid flowering climber, which ought to be in every stove, warm conservatory, or greenhouse. When the plant has got established, it blooms profusely, its large clusters of flowers, near twenty in each, of a fine orange colour, being exceedingly showy. Each trumpet-shaped blossom is near three inches long. If the roots of the plant have the advantage of a bark pit, or otherwise wormed, it greatly promotes its vigour, and is the means of bringing it early into bloom. Plants may be had of most public nursery establishments.

ON ORCHIDEÆ.—For what purpose can the world have been adorned with these Orchideous plants? To man or animals they are scarcely ever of any known use. No honey is secreted by their flowers; neither poison, medicine, nor food, are collected in the recesses of their stems; and their very seeds seem unfit for feeding even the smallest bird. We can scarcely suppose them provided for the purification of the unwholesome atmosphere of the forest recesses in which they delight, for their organization is that of plants whose leaves perform their vital actions too slowly to effect such a purpose. For what then can they have been formed, unless to delight the sense of man, to gratify his eye by their gay colours and fantastic forms, and to shew the inexhaustible fertility of that creative power which we recognise every where in Nature. If this be not the object of those countless changes of form and colour which the *Orchis* tribe exhibits, we shall scarcely comprehend why in this very genus *Oncidium* the lip bears at its base a collection of tubercles which are not only different in every species, but so strangely varied, that

“Eye of newt, and toe of frog,”

are the least singular of the forms that lie cowering in the bosom of their petals; the heads of unknown animals, reptiles of unheard-of figures, coils of snakes rising as if to dart upon the curious observer, may all be seen in the blossoms of the various species, whose very flowers may be likened to unearthly insects on the wing.

ON NUMEROUS SPECIES OF LUPINES.—In the Synopsis of the Genus *Lupinus*, by Dr. J. G. Agardh, that gentleman has described seventy-six certain species, and adverted to seven other kinds of which very little is known.

ON CHINESE GARDENING.—The style of Chinese gardening, like other art, is peculiar; they have no idea of spacious landscape; there is a littleness in all their designs; they have a desire for a small part of every the grandest features of nature: lakes, where a mackerel would be puzzled to turn; rocks which a man may carry away under his arm; aged trees fifteen inches high; and thick forests of pines composed of equisetum. Of whatever extent the ground may be, it is all divided into little squares, parallelograms, or irregular areas of a few square yards or perches. These compartments are surrounded by low brick walls, having a flat coping, on which are placed flowering plants, in fine glazed porcelain pots. The paths are often composed of flat stones, not two of which are on the same level, if near together. A great deal of trellis-work are in the gardens, either appearing like the remains of former fences, or as coverings of naked walls. If a ditch or artificial hollow be in the garden, it must be crossed by a semi-circle arch of four or five feet span. Their little tanks of water are not considered beautiful until they are completely covered with ducks' meat, (*Lemna*); in short, there are so many childish freaks which constitute the beauty of a Chinese garden, that it is astonishing so clever and civilised a people can be gratified with such puerile efforts of unnatural taste. As far, however, as their collections of flowering plants decorate a garden, the assemblage is enchanting. Their Magnolias, Bombacæ, Azaleas, Camellias, Ivoræ, Pæonies, &c., not to mention the great variety of herbaceous and aquatic plants natural to the country, are indeed magnificent; indeed one of the finest traits of the Chinese character is their fondness for flowers.

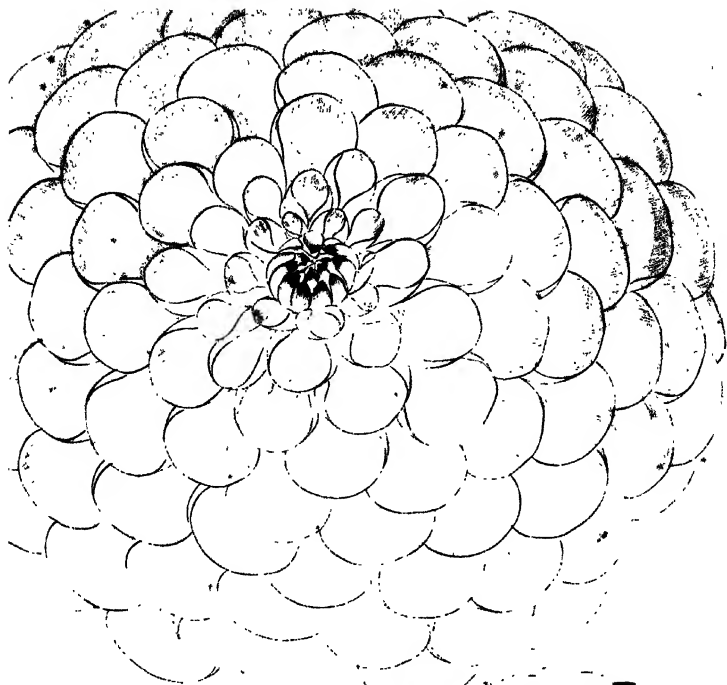
REFERENCE TO PLATE.

1. *Marsh's Paragon Dahlia*.—This very handsome kind was raised by Mr. Marsh, Gardener to Sir Bethell Codrington, Bart. The flowers are of a very perfect form, cupped petals. It is a profuse bloomer, comes into bloom early, and has always produced double blossoms; the flowers stand well above the foliage; the plant grows three feet high. We purchased the stock of Mr. Marsh last season. A considerable quantity of very vigorous plants will be offered for sale early this spring.

2. *Gardoquia Hookeri*, Dr. Hooker's. *Gardoquia*; Labiate; Didynamia; Gynnospermia. This very neat and handsome flowering plant is a native of South Carolina, from whence it was sent, along with many other valuable seeds, by Mr. Gordon, to Mr. Charlwood, Seedsman, Tavistock-Street, Covent Garden, London. During the last summer, we saw it in the very select collection of plants at William Bows, Esq., Broughton, near Manchester; it was cultivated in a warm part of the greenhouse, and by the very successful mode of culture the plants had, they produced a vast profusion of blossom, and had a most handsome appearance. The plant is shrubby, grows from half a yard to two feet high, bushy, blooming from April to November. The very worthy gardener, under whose management every thing appears to be cultivated in a state of perfection, entitling him to very superior merit, informed us, that to have healthy plants, young ones must be annually raised, (cuttings striking very easily,) and they may be constantly kept in an excited state. The pots had a free drainage, and in a mixture of sandy peat and loamy soil, it flourished in the manner we stated. We understood that the plant was very liable to injury from over-waterings, that especial attention to avoid this was necessary. *Gardoquia*, in honour of D. Diego Gardoquia, Minister of Finance under Charles 4th, King of Spain, a lover of Botany, who greatly assisted in the publication of the *Flora Peruviana*.

3. *Verbena Tweediana*, Mr. Tweedie's. This very handsome flowering plant has bloomed in Scotland during the last summer, where it attracted much notice. Several of our friends who saw it, one of whom says, that it very far exceeds that admirable little plant *V. melindres*, (chamedrifolia,) the racemes of flowers being much larger, as also the flowers, and of a fine crimson red colour. The plant grows erect, from half a yard to two feet high, blooming very freely. It deserves a place in every greenhouse and flower garden. It strikes readily by cuttings, and grows vigorously in a rich loamy soil.

Barnes
near of Northfield



Chrysanthemum



Chrysanthemum

Chrysanthemum

THE FLORICULTURAL CABINET,

FEBRUARY 1st, 1837.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CULTURE OF THE NEAPOLITAN VIOLET.

BY MR. ERRINGTON, OULTON PARK, CHESHIRE.

BEG to hand you the following remarks, on the culture of that early winter flower the Neapolitan Violet, for insertion in your excellent Magazine, if you consider it worth your notice; for I do not remember having seen anything of the kind in that work from its commencement.

The first part of the process is to obtain early runners, to affect which it is of course necessary to have a bed or patch of established plants in hand—such being the case, commence your operations early in April, by sifting some very fine vegetable mould all over them; of course not choking the plants, but merely to form a receptacle for the fibres of the young runners. In the course of a month, by due attention to watering when dry, &c., (a process particularly necessary,) fine early young runners may be obtained. Prepare them in pots or beds on an open and airy border, (south if possible,) and if the soil be somewhat solid so much the better, as the object is not so much to get an excessively luxuriant, as an early and stiff plant. On this solid sub-soil (if I may so term it) raise a bed six inches above the common level, with soil composed as nearly as possible, of equal parts of fresh loam, inclining to lightness and vegetable mould; by which latter I mean about equal parts of bog or heath soil, and finely decomposed leaf mould.

On this bed prick them out at about eight inches apart each way, and all that remains to be done, while they are in this situation, is to push up the cultivation on as fast as possible, by complete attention to watering and weeding. If the weather prove excessively sunny for days together, shading at any period through the summer will be highly advantageous. One thing must be here remarked,—to

wards July they will be getting strong, and of course producing abundance of strong runners: as soon as these become thick they must be thinned with the knife, once or twice; in doing which, let all those that appear long-jointed be cut entirely away, and all such as appear short-jointed and stiff, be retained: leaving finally from three to six, not more, of these stiff and staunch adherents. In the first week of September, if the cultivation has been done justice to, they will be fit to remove into their winter quarters, for what is termed forcing. As to the making up of the frame, fancy must dictate that, as there are so many modes, and each good of its kind: I will, however, just observe by the way, that they are very impatient of heat and moisture, and are full as likely to be "killed by kindness" as lost by neglect. In this, as in most of our gardening operations, nature must be our principal guide. I have tried a small bottom heat of leaves, and have found it to answer well; but this of course requires great caution to watering and giving air, as they are liable to damp off in winter: however, I am convinced that if the runners be obtained and cultivated early they will be best on a cool bottom, say an old melon bed that stood high enough to receive a good body of lining through the winter: in which case the old bed may be pierced through with abundance of holes, both for the escape of superfluous moisture, and for the sake of the heat of the linings penetrating the bed. The soil they are to be planted in should be prepared as follows:—about three inches thick for the bottom, of the surface of an old cucumber bed, taking as much rotten dung, as loam or soil: on this place about three or four inches more of the compost before directed, only adding a good sprinkling of sharp sand, and a little very rotten dung to it. The plants may now be removed, in doing which, take care to obtain as large balls of earth as is possible, the less check they receive the better; and when the frame is planted give the whole a good watering. All that can be done hereafter, is to keep on the lights in all rainy and inclement weather; never suffering them to have a drop of rain, and giving them all the air possible without starving them. As the early frosts begin, let the plants be regularly matted up at nights; as the cold increases, add more mats towards December and through severe weather plenty of hay or litter: I need scarcely add, be sure to keep the frost out. Let it be well remembered that they are very impatient of confined damp, and also of heat:—from 50 to 58 degrees is plenty for them. The slugs are mortal enemies to the blossoms; therefore be sure to keep a few cabbage leaves in the frame, and pick them over regularly every evening or morning. By these means this lovely winter flower may be obtained in the very highest perfection from October to May.

ARTICLE II.—ON FORCING ROSES, &c.

By J. R. Willis, Gardener to the Rev. W. P. Thomas, Drakes Place, Wellington.

As I see no answer to the desire of your correspondent, "A Devonian," in Vol. iv, page 75, on Forcing Roses, I once more intrude on the pages of your valuable work, the *Floricultural Cabinet*.

In giving an account of the plan I adopted with the Roses I had under my care last season, I must observe that it answered my most sanguine expectations; I am, therefore, following the same mode of treatment this present one. I hope at the same time it will meet the wishes of "A Devonian."

I pot the plants the latter part of August in the compost and same sized pots I recommended in Vol. ii, page 3 of this work. Having but one plant stove, which is about 40 feet long by 15 feet wide, I take a common cucumber frame, putting some rotten tan into it, in which I plunge the pots, (but I should have named, that before I put them into the frame, they are pruned back to two or three eyes,) I then put a strong lining of hot dung, as recommended by Mr. Wood, in Vol. ii; and put on the lights directly, having some very thick reed mats made for the purpose, I cover the lights with them; they remain covered in this manner about a fortnight when the buds will all have broken. I take the mats off and let them have all the light I can so as to bring them to their colour, which they will attain in a few days. I then remove them to the coldest end of the plant stove, which I keep now at 75 or 80 degrees; I keep them to this situation about a week, when I remove them on a trellis to the front of the house, towards the end where the heat first enters, where I keep them moderately moist at the roots, and occasionally syringe the tops. It is almost needless to add, that the time for putting them into the frame can only be governed by the time they are required to be in bloom, which I find to be about six or seven weeks from the time of putting them in the frame. In answer to the question, "Whether it is possible to have fine forced Roses late in December and January?" I reply, that I have forced them so as to have them in bloom at Christmas, but the flowers were never so fine, neither do I find them to bloom so freely as those which come in flower in February and March; in fact I have had them in February and March little inferior to those in the open air. With respect to whether "They will bear removing to a conservatory after the blossoms are produced, &c.?" I answer, they will remain in flower much longer than if kept in the stove, but I find that the buds that were just formed when they were taken from the stove will turn yellow and drop off; they are not so liable to fall when kept in a warm room in the house; I have had them in the house for more than a week, and then removed them back to the plant stove, and opened the buds already formed, but they certainly feel a check, as they were not so fine as the first. In answer to the question concerning "Moss

and Province Roses?" They both force remarkable well with me, and produce a great number of flowers; the only difference I show them in treatment from the others, is, they are syringed rather oftener than the other sorts. The Roses I principally force, are those here named, they may not be considered the best by some, as I am aware that the different growers have their fancy sorts for the purpose of forcing Moss crimson, Moss scarlet, Province, Crimson perpetual, Gloire de jardins, Lee's perpetual blush, Yorkshire province, Indica Ochroleuca Noisette, Smith's New Yellow Noisette, Charles 10th—These are the sorts I most admire for the purpose of forcing, not forgetting the one recommended by Mr. Wood, viz., Rose du Roi. With regard to "The height the Dog Rose stock should be, to show the flowers to advantage?" I should say, in answer, that the height in some measure depends on a persons own fancy, but, however, my opinion is, the dwarfer it is the better.

The Persian Lilac should be taken up or repotted as soon as the leaves are off, and potted in a sandy loam, in pots sufficiently large to contain their roots when potted; put them in some convenient and sheltered place, until the latter part of January, then put them in the stove, and keep them moderately moist. *Hydrangea hortensis* may be forced just in the same manner.

The greatest beauties we can add to a conservatory in spring, are, in my opinion, Rhododendrons, Azaleas, and Kalmias. Those I force are Rhododendron ponticum, Do. Smithii, Do. Cunninghamii, Do. arboreum, Do. Catawbiense. *Kalmia latifolia*. Azalea Indica alba, Do. phœnicea, Do. Smithii, Do. pink, Do. blush, Do. white, Do. yellow. These should be carefully taken up with good balls, disturbing the roots as little as possible, and put them in pots large enough to contain the balls. The time I pot them is in November—I do not recommend their being brought into the forcing-house until after Christmas, when they will begin to push directly; the only treatment I use, is keeping them moist and syringing the buds.

Dec. 6th, 1836.

ARTICLE III.—ON DESTROYING THE WIREWORM.

BY C. S. PLUMSTED HALL.

A "Subscriber and Constant Reader" mentions in the *Floricultural Cabinet* for October, 1836, that a friend of his had lost, in one season, an extensive collection of Dahlias owing to the attacks of wireworms. The same circumstance is very prevalent in those counties where the cultivation of hops are general; and the method adopted by a very clever grower of these plants is, to have five or six slices of raw potatoes placed among the loose mould which surrounds the plant you wish to preserve. In a short time the slices of potatoe will be quite filled with the worms, when it is advisable to employ women or children to take up the slices of potatoe and put down fresh ones.

In the hop ground I saw, one of the slices of potatoe alone contained twenty wireworms, and by examining one slice of potatoe it will be easily discovered when they require to be replaced.

ARTICLE IV.—ON THE CULTURE OF THE PRIMULA SINENSIS.

By Mr. Plant, Gardener to S. H. Haslam, Esq., Chesham, Bury.

It may not be unacceptable to some portion of the readers of your *Floricultural Cabinet*, to be informed of a mode of treatment in order to bloom the *Primula Sinensis* in its best perfection, and at its proper season.

The compost I make use of consists of rich light loam and peat soil in equal parts.

The seed is sown in the month of May, in a pan lightly covered and placed in a cold frame. When the plants have formed their two first rough leaves they are transplanted singly into pots of sixties; when their roots have filled these, they are then removed into forty-eights, and afterwards into thirty-twos, keeping them in the same situation, and finally into twenty-fours when removing them into the greenhouse in October. It is necessary in all the pottings to give a good drainage of broken crocks or cinders.

The *Primula Sinensis* and its varieties, treated after this manner, form a desirable addition to the greenhouse and conservatory during the winter and spring months, afterwards they may be planted into the open border or thrown away, as it is requisite in order to have good blooming plants to sow the seed every year.

ARTICLE V.—ON CULTIVATING THE ERYTHROLENA CONSPICUA

BY SCARLET THISTLE.

My pleasure ground is laid out with small clumps of different shapes, one clump is planted with white dahlias, another with yellow and so on. I am fully convinced that by having each clump planted in this manner, the superiority of one flower over the other is more fully seen and the effect more striking.

The clump next to the one planted with white Dahlias I had planted with *Erythrolena conspicua*, and I do assure you the effect was most beautiful. The plant is of very easy culture; I recommend the seed to be sown under a hand-glass in March, and when the plants are three or four inches high, to be placed singly into pots, and kept in a frame until the middle of May, when they may be turned out of the pots into the clump. The soil I find them to thrive the best in, is a rich loam. I have had plants this season from five to seven feet high, and completely covered with fine large bright scarlet flowers. Should you consider this worth noticing, you shall hear from me again.

ARTICLE VI.

ON THE TREATMENT OF THE ERITHRYNA LAURIFOLIA.

BY G. H. C.

THE *Erythrina laurifolia* was introduced into Britain in the year 1800, from South America, and is generally treated as an inhabitant of the stove and greenhouse only, which on trial is found to grow and flower most beautiful when planted out in the open air with other exotics from the same country; using a compost of peat, sandy loam, and decayed tree leaves, well chopped and incorporated together, but not sifted. If planted in spring, head it down almost to the surface of the ground, and place a hand-glass over it, keeping it close until all the buds are broke, then admit plenty of air in favourable weather; on the hand-glass being removed, the young shoots must be well secured, in case of wind, as they are very apt to break, if not supported. If treated as above, it will have a fine green foliage intermixed with its beautiful scarlet blossoms from July to September. When it has done flowering, it may be headed down and covered with tree leaves for the winter, or all the shoots tied together, and then rolled up with hay-bands, and in spring treated as before directed.

ARTICLE VII.—ON THE CULTURE OF THE AURICULA.

By James Shepherd, Nursery Seedsman and Florist, Winchester.

I HAVE for the last ten years practised growing Auriculas, and followed Mr. Emerton's plan, laid down in his Treatise, for several years; but loosing so many plants, year after year, convinces me that his compost is too hot, which induced me, three years ago, to try a fresh compost, and it proved very successful. My plants this year completely cover the pots with leaves, which have from twelve to twenty-two leaves, with trusses, from nine to twenty-two pips.

Good soil and good management, as Mr. Emerton observes, is not easily beaten, although I differ with him in many respects; as for instance, I do not use exactly the same soil, nor keep my plants under glasses in the winter, neither keep them in the same situation when in bloom. The situation in which I keep my plants for the four winter months, viz., October, November, December, and January, is under a shed, in a full south aspect, where they can enjoy all the sun. Observe to keep them tolerably dry; the beginning of February I top-dress them and put them under glasses, but giving them all the air I possibly can, and also to keep the frost from them; I manage to keep them as warm at night as in the day, for this being their growing season, they like to be kept at a regular temperature, if not, they will become more or less chilled, and not bloom free. The situation in which I like to keep them, when in bloom, is in an east aspect, letting them have the sun till 8 o'clock in the morning, after which, I shade

them with very thin mats till the sun is gone from them: if put to a north aspect, and some of the pips not quite blown out, they will be chilled and never open free. Remember I do not keep them too warm when in this situation, neither let the cold nights chill them. If auriculas have too much water they will become *sickly* and turn yellow, which was the case with four or five of mine last spring in letting them have too much rain. The compost must be rich, light, and sweet, and when you are potting your plants never press the mould too hard about the roots, nor on any consideration over pot them, as this family of plants, like many others, will not thrive well until the roots touch the pot.

Before I changed my compost I lost from ten to fifteen plants every year, but for the last three years I have been very successful and only lost one, Taylor's Ploughboy,—which by some neglect the old soil had not been removed from it, and had diseased the plant in the trunk, just under the surface. About the latter end of May, when the bloom is over, I remove them to their summer situation, which is shady, as they thrive better in the shade in the summer months, until the end of September, but by no means under the droppings of trees. Observe, I take off all the offsets when I top-dress them, which I consider the best time, as the auricula at this season (February) makes considerable progress, and whether the offsets have roots or not I take them off, provided they are large enough. I plant four offsets in pots called forty-eights, in which they will take root very freely, not letting them have too much sun; in about two months they will be fit to pot off in the same size pot above named.

I herewith send you some new varieties of seedling auriculas of my own rearing, which I trust will be found worthy of your notice.

If the lovers of auriculas should like any of No. 1, 2, and 3, they can be obtained by taking the three varieties at 18s. 6d. per plant, on application, post-paid.

Plants will be ready to send out in August next. I beg to state that the above sorts are free growers, and most excellent trussers, from fifteen to twenty-two pips.

[The blooms were so damaged in conveying as to prevent us taking any drawing of them.—CONDUCTOR.]

(Continued from page 16.)

ARTICLE VIII.—ON THE CULTURE OF PINKS.

BY A PRACTICAL GARDENER.

Be not impatient about your suckers taking root; but if by the tenth or twelfth of September, you see that nature has not had strength enough to operate in them, put your pots into hotbeds, and be careful to cover them with glass-bells.

Never did any author enlarge so much upon nothing, as he that wrote the culture of Pinks has done upon this article: he has carefully enumerated every particular, even to the minutest circumstance of things, that he imagined only might happen: in short, he has forgot nothing, yet all he says is, for the most part, empty words that prove nothing.

To make a mixture of earth proper for Pinks, that naturally love the cool; take one third of good kitchen-garden earth, one third and a half of mould, and half a third of yellow earth; sift them well and mix them all together. When this composition is made, take pots of a middle size, which are wider at top than at bottom, so that whenever you think fit, you may the more easily take your Pinks out of the pots: fill them with this earth; press it down a little, to hinder it from sinking down too much of itself, as it otherwise would: and when you have filled them thus with the earth to within an inch or better of the brim, fill them up quite with mould taken from an hotbed.

Having done this, go to your suckers, take up the little hook that holds them fast, and if you find they have taken root, divide them from their stocks, by cutting them with a knife or some such like instrument, as near as you possibly can to their stalk: take care that the two shanks of your suckers, which are the lower parts of them that spread themselves abroad, by reason of the incision which was made on them, and to which the little fibres adhere, be always of a like length; gnaw off the ends of the leaves. This is a method which has been hitherto constantly practised.

Having exactly followed these instructions, take it for a certain rule, that the true time to plant the suckers, is towards the beginning of October; and when you have divided them from their stocks, and have nothing more to do, but to put them in pots, observe the following method of doing it:

Take your suckers, that are prepared in the manner I named, hold one of them in your left hand; with your fore-finger make in the middle of your pot a hole large and deep enough to contain your sucker; put it in, and fill up the hole; press down the earth upon the suckers, water them, and when you have planted them all in this manner, carry your pots into the shade: leave them there for ten or twelve days, which is the usual time in which we suppose them to have retaken root.

The safest way to govern plants is, always to have regard to their constitution, and to the places from whence they draw their first extraction. The Pink comes from a temperate climate, and accordingly desires but a moderate sun. Therefore, when the ten days the suckers have been in shade are over, take them from thence, and place them in an easterly aspect, which agrees with them the best of any.

This Pink is not very sensible of cold, therefore, be not afraid to let it weather out the first frosts: we see a great many endure the

winter in the naked earth, and come to no damage. Not that I advise you to leave your pots exposed in this manner; that would be too much neglecting a flower that deserves a particular esteem.

As soon, therefore, as the frosts begin to pinch, let all your pots be carried into your conservatory, if you have one; and if not into a chamber or some other place, where they may be sheltered from the rough violence of the air.

If the winter be mild, and consequently the earth in the pots that are in the conservatory should grow too dry, it will not be amiss to give them a little water, drawn fresh from the well, or some other place of that nature: but if it freeze, or if there be any likelihood of frost, you must not do so on any account; for to water them, would do them more harm than good.

There is no animal more dangerous to Pinks than rats; you must, therefore, be very watchful that they do them no mischief, and make use of all the means which have hitherto been invented to destroy them.

There can be no fixed time prescribed to take the Pinks out of the conservatory, for the end of the winter must determine it; though about Easter we see the florists generally set them out in the air, but in a place of shelter from the hoar-frosts, to which the season is still subject, and where the sun never comes: for plants, that have been as it were imprisoned, must be accustomed by degrees to endure the open air, otherwise they will be suffocated by it, and die away.

If there be any leaves on the Pinks, that seem to be rotten, you must be careful to take them off, which must be done by pulling, or cutting them off as close to the stem as you possibly can.

When the Pinks have been for some little time in a place like that I have described, you must carry them to another, where they will thrive, and grow better; that is to say, you must set them in the easterly aspect, which is favourable to them; though I have seen some exposed to the south, that have done very well, and that grew in a short time by the help of frequent waterings; but the water ought always to be warmed by the sun.

These waterings should never be given them till after sun-set; and always with a little watering-pot, that the water falling gently on them like rain, may not beat down the earth: as to the quantity of the water, it must always be left to the discretion of the florist, to give them as much or as little as he thinks fit.

When the pinks begin to spindle, they require a little more care from him that looks after them, than they did before: for we then take little hazel-sticks, of about the size of the little finger, the bark of them being stript off, set them at the foot of each spindle, and tie them with a small rush as fast as they rise up: for without this prop, the stems, which is naturally weak, would not be able to support the flowers it produces, but would be apt to grow very crooked.

The stalk of a pink sometimes shoots out mounters from all its tips, which is an inconvenience we ought carefully to avoid: therefore carefully take off some of them, by cutting the stalk to the second joint.

The frequent waterings given to pinks, and that beat down the earth, together with the heat of the sun that dries and hardens it, obliges a florist to turn up the surface from time to time: and we may affirm, that each time he does so, he will find a visible advantage by it: after which tillage, we always give it some new mould taken from a hot-bed, as well for neatness sake, as for the benefit the pink gives by the addition of new salts, which penetrate into the plant, whenever we water it.

The pink is a plant that requires more assistance from art than any other; it often produces buds we wish it did not: and when we perceive this hurtful fruitfulness, we must not omit to ease it of the burthen, as much as we judge convenient; especially when two grow side one another, we must be sure to take away one of them: for in the affair of pinks, we ought to be more desirous of beauty, than of the great number of flowers.

The buds we take away are always those that grow nearest the foot of the pink; and we must shew our judgment in this operation; that is to say, we must take away from those that want nourishment, than from those which grow naturally large, on which we are sometimes obliged to leave all of them, because they are subject to burst.

In regard to the Pinks that burst, we must, when we have any that are subject to do so, tie the bud, and shift it a little on the side where it bellies out: the large and short bud, we ought mostly to suspect.

When the Pinks are in flower, we should consider whether nature has disposed all things in a manner, so just in all its proportions that we may say, this is a beautiful Pink; and in defect hereof, we must comb such as require it; the manner of which is as follows:—

Wash your hands clean, and wipe them very dry, take your ill-shaped pink and bend down the top of the husk, shifting it a little; take notice which leaves of your Pink are out of order, and with your hands dispose them in the most beautiful order you can: after this you will see the difference there will be between the first disposition and the second.

All persons that are truly curious, when they have any Pinks that burst, and which by reason of that accident cannot keep their flowers in due order, make use of a piece of pasteboard, cut round, and a hole made in middle, not larger than the size of the pink, and this they place just under the leaves of the flower, which they put into their due order: this gives it a beautiful aspect, and makes it grow to a wonderful size.

The Pinks that are in pots are generally set upon boards, that are laid upon trestles, and when they are placed to advantage, they claim the admiration of all that see them.

When your Pinks are in flower, whether they grow in the naked earth or in pots, you must take care to cover them; for their flower is so delicate, that the sun withers it away in little time, and the rains will take off all their lustre: therefore, they that raise up Pinks, must make use of what expedients they think fit, to preserve them from these injuries.

There are some, who, to make the flowers of their Pinks last the longer, carry them into the shade: this is a very good method, and may be followed if you think fit.

The pink is a plant, that from its root shoots out leaves, that are long, narrow, hard, thick, and of a bluish green; from the middle of which grow stalks that are hard, round, and knotty from space to space; at the top of which are flowers of many leaves and various colours, supported by a long and pipe-like cup. From the middle of the cup rises up a chive, that in time becomes a cylindric and membranous head, opening at the top, wrapped up in the cup itself, and filled with a small flat seed, of a black colour, and that comes to maturity, by setting the pink in the same place where it was when it began to blow.

When you would furnish yourself with a stock of pink-seed, you must always make choice of the most fruitful, and the most inclined to bear seed; which a florist, who applies himself ever so little to the culture of his pinks, will easily distinguish.

After having given rules for the culture of pinks, as also the description of them; and told how and in what place the seed is formed, I believe it will be proper to set down in this place the qualities that render it a beautiful flower; to the end that he who cultivates it, may know perfectly well on what he bestows his labour.

A pink is reckoned beautiful when it is large, has a great many leaves, and forms as it were a sort of little dome.

When it is of a clear white, without any mixture of carnation; when its leaves are even at the edges, and not jagged, all of them round, and not sharp-pointed.

The more variety of colours a pink has, the more it is esteemed; especially when the colours are well divided, and not in the least imbibed.

The most beautiful variegation that can be on a pink, is always that which reaches from the bottom to the top of the flower; and when besides these advantages that please the eye, Nature has favoured it with a regular disposition of its leaves; or that we, in defect thereof, have ranked in due order ourselves. A pink, in which all these qualities meet, deserves the labour we bestow in cultivating it; and we have reason to be fond of it, on account of its excellence.

THE DISEASE OF PINKS.—Pinks are subject to certain diseases which are easier to prevent than cure: they are rottenness, and the white disease.

ON SPECIES OF ACACIA.

The rottenness is prevented by avoiding to give too much water, and by cutting to the quick the part that is unsound, before it is quite tainted, and covering it over with a dry and light earth.

In regard to the white disease, we preserve this flower, by not keeping it too dry; by not placing it in a situation that will be too hurtful to it: and in short, by preserving it from the fogs, which infect it to that degree, that they throw it into a disease which kills it without remedy.

Take care not to place your pinks in any plots of the garden, where there are other flowers of the large kind: whose beds filled with them, afford in the season a very beautiful prospect: but it is always best to raise them in pots, to adorn an amphitheatre made on purpose to receive them.

ARTICLE IX.—REMARKS UPON GREENHOUSE SPECIES OF ACACIA

BY A FOREMAN OF A LONDON NURSERY.

THE volumes of the *Floricultural Cabinet* contain numerous valuable articles on the treatment of various flowering plants, but it appears to me that those individuals who have favoured us with the excellent remarks on each kind, have generally directed their attention to such plants as required a lengthy article upon them. For such I am sure the readers of the *Cabinet* are much indebted, but there are many, very many, beautiful flowering plants which have not been noticed, they highly merit it; and though no lengthy remarks are necessary, I think it would be equally acceptable if a few short observations upon them, as to the particulars of the plant, its culture, so as to keep it healthy, and bloom profusely, &c., were given. I believe many of the readers of the *Cabinet* have hesitated to communicate useful information, merely because the observations they had to make upon a plant, or plants being few, they would not therefore be interesting or useful, but I am sure the more simple the means, the more condensed the remarks, the more acceptable to us. I hope therefore those readers who have practical knowledge of any beautiful flowering plant, hardy or tender, will favour us with information. To commence with, I herewith send a few remarks upon two genera of plants of which no notice has been taken in the *Cabinet*, they are the greenhouse Acacias, and Mimosas. I have included the two, because many of the kinds formerly Acacias have been transferred to the Mimosas, and others of the Mimosas to the Acacias. And considerable confusion prevails through the country as to their identity. But whether they are now designated Acacias, Mimosas, Ingas, &c., there is a natural identity in the class of plants and I refer to them as a whole. The plants are profuse bloomers, very showy, most of the kinds produce yellow flowers, some white and others pink: most of them are very fragrant, as the well-known *Mimosa paradoxa* or *Acacia armata*.

They generally produce their lovely blossoms during the early spring months, hailing the return of that delightful season with presenting an array of beauty, and affording a delightful gale of perfume. The greater portion of this ornamental tribe of plants are from New Holland. They are generally very free growers and of easy culture. I find them to grow vigorously in equal parts of good rich loam and peat, having a quantity of Calais sand mixed therewith. I use a good portion of drainage in the pots, and give the plants plenty of pot room. This latter attention is necessary as the plants root so very rapidly. In a soil as above described and giving a good drainage, a very free supply of water is required, I always take care to let the soil be dry before I give a fresh supply of water. I shift the plants into larger pots immediately they have done blooming, they then push freely those young shoots which are the blooming ones for next season.

I would add a list of kinds here, but I think it unnecessary to do so, as each kind are graceful in form, and beautiful in flower, and merit a place in every greenhouse or conservatory.

Many of the kinds strike root freely from cuttings, taking the young shoots, I strike them in sandy loam, the greater portion being sand, and place them where they get a little bottom peat. Those kinds which I find do not root readily from cuttings, I have struck from portions of the roots, inserting them, &c., as done to shoots, leaving out the top part of each about an inch. I have never failed to raise plants of any of the sorts by this method. I always cut the lower portion of the root in a transverse direction close under an eye. If this plan of striking was adopted with most kinds of greenhouse plants, it would be found to succeed better than by taking shoots. The roots not being liable to damp off as the shoots often do. I shall continue to send a few remarks upon plants for each successive number of the *Cabinet*, if it meet the approval of the conductor.

ARTICLE X.—ON THE TREATMENT OF THE HOYA CARNOSA.

BY PRIMULA SCOTICA.

NOT having observed any reply to your Correspondent's question respecting the treatment of the Hoya Carnosa, I send my gardener's mode of treatment, which always succeeds admirably. He uses a mixture of sand and heath mould, and during the colder part of the year, keeps the pots in the hothouse. Those plants of the Hoya Carnosa that are propagated by planting the leaf, are long in producing any stem; and it is better to procure a good offset, and lay it spirally in a pot containing the above mixture, when a fine plant is rapidly produced. This waxen-flowered plant shows to advantage trained along a rafter, or against a trellis, and requires the free access of air and light.

ARTICLE XI.

ON THE REPOTTING OF GREENHOUSE PLANTS, &c.,

BY A PRACTICAL GARDENER IN STAFFORDSHIRE.

ON account of the variety and number of greenhouse plants, it is rather difficult to reduce them to any one certain rule; not only because they are less expensive, and consequently more cultivated, but also that our milder climates, are found to produce plants in greater abundance than the Torrid Zones.

Therefore the business of shifting is, in general, a weighty concern. To be enabled to execute this business with regularity, every preparation should be previously made, and the different sorts of mould laid up in a shed; as well to keep them from becoming too wet for use by sudden showers, as from getting too dry by the action of the sun, or arid winds which may be expected at this season. Also on wet days (if nothing more urgent is to be done) let a quantity of old broken pots be made small, to serve for draining to the tenderer sorts; the coarse siftings of peat being sufficient for the stronger growing kinds.

Things being thus in readiness about the middle, or end of May, the general shifting should be commenced: in order to which, let some of the plants be carried to the shed, and carefully proceeded with in the manner already directed for hot-house plants; observing, above all things, not to injure the roots, but gently to loosen them with the hand in such manner, that the mat of roots, which is generally formed on the outside, may not remain entire; whereby they will soon strike into the fresh mould that encompasses them.

Green house plants for the most part require a considerable share of pot room, as many of them are very free growers; but still great caution is necessary, to avoid over potting the tender weak growing kinds. When shifted, let them be tied up if requisite, and well watered. It will be also necessary to shade them for a few days from the influence of the sun and winds, until they are perfectly established in the fresh mould. Any dead or ill-grown parts can now be with propriety cut away, so as to give the heads a regular neat appearance: by observing this process, it will be found, that though a temporary check may be the consequence, they will soon flourish and do much credit to the operator by their healthy appearance and progress.

It being mentioned that shelter, and occasional shade is necessary for a few days when they are first placed in the greenhouse, I must add; that should the weather prove dark, and cloudy, this work may be omitted: however, if hot sunny weather ensue, it will be indispensably necessary; and also, to water them twice, or thrice a day when first potted, observing to wet the leaves as little as possible.

By the middle of June, it will be time to think of preparing the out-door departments, in which it is intended the plants should stand during the summer months.

The most eligible situations for this purpose are, the north aspect of vacant walls, or hedges, where they will be a little shaded from the noonday sun, or between rows of close hedges particularly planted, and solely appropriated to this purpose. I can by no means espouse, or recommend the practice, of setting them close under the shade or branches of large trees; as the plants are thereby inevitably drawn into a weak state in a few weeks, and those who adopt such situations, are not unfrequently under the disagreeable necessity of throwing away many, of perhaps their most rare plants, every Autumn; and even those that remain will have a bad unsightly appearance. Indeed shelter from the winds, is the great desideratum, to prevent their being upset, for in my opinion, most greenhouse plants are fond of the warmth of the sun, except when recently potted, provided their roots are kept moderately moist. Let us look for a moment to the arid mountains of the Cape, and there we shall find them exposed to its full glare, and perhaps without water for months: their roots however can penetrate deeper there than they can possibly do in pots, so that life is preserved, and as soon as the periodical rains commence, they resume in a very little time their verdure, and, "breathe their balmy fragrance all around."

Some gardeners' practice is to plunge them amongst the shrubs and flowers of the pleasure ground; this answers pretty well with the strong growing kinds; such as myrtles, geraniums, coronillas, &c., old plants or supernumeraries that will not be wanted to house in the autumn: and even has a very pretty effect when judiciously done; but it will by no means do for the tenderer species. Therefore, upon the whole, the most unexceptionable situations, are such as at the same time afford a moderate portion of shade, and are so situated, as to break the force of those strong gales, which frequently blow in the summer, and early autumn months, and yet allow that free circulation of air so necessary to the well-being of plants in general, and at all seasons. Having fixed on the place they are to stand, it must be thoroughly cleared from weeds, and the hedges, if any, neatly clipped. It should then be well rolled, to make it perfectly firm and level, over it a layer of good lime, slacked, and made into the consistency of thick white wash, should be poured, and allowed to soak into the surface: this I recommend as being a strong preventative against worms getting into the pots; which is always injurious to the plants. When this is dry, let about an inch of finely sifted coal-ashes, be regularly laid on, and firmly rolled a second time.

Being thus prepared, the plants may be brought out and set regularly and level on the surface; in whatever form may best suit the situation, or the fancy of the proprietor, even on this subject a few observations may not be unnecessary.

Therefore in placing them, it should be endeavoured to give them a loose, easy, but yet judicious manner; which is by far more handsome

than the stiff, shorn-like front, admired by some: any plants that may be in flower, should be placed in conspicuous situations, but not so as to make the clump look in the least tawdry; simplicity and neatness are the principal objects to be considered, in this, as well as the other decorations of the flower garden: another circumstance to be remembered, is, that now as their summer growth commences, it will be necessary to allow each plant, sufficient room to spread according to its natural habit of growing; and also to be careful, that the curious tender sorts, (which are frequently the most valuable,) are not crowded by the large free growing kinds. Indeed they should be set, as well as heaths, in a separate clump as they lose a good deal of their interest, by being confounded with large shewy plants that attract the eye, at the first glance, from the more delicate and minute, but to many not less attractive species.

Should the weather prove dry when they are thus set in their clumps, they must be freely watered; particularly in the afternoon, when the sun has nearly ran his course. A good washing also with an engine, or syringe, at times in the absence of the sun, will be of considerable service to them; but if any individual plant should a any time become too wet, let it be placed apart from the rest, and no watered again until it evidently requires it: this is a circumstance which I shall have occasion to mention hereafter; all that is necessary now, for a few weeks, is to pick off dead or withered leaves, and weeds of every description, and a regular attention to the direction already given.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. BURLINGTONIA

Natural Order GENIA CANDIDA, Snowy flowered. (Bot. Reg. 1927.)
Synonym, P. Orchidaceæ; Linnean, Gynandria; Order, Monandria;
 species of Rodriguezia candida. A delicate and handsome flowering
 Decid. tree of this most interesting tribe of plants. It has been introduced from
 Caracas, by R. Bateman, Esq., in whose superb collection it bloomed in 1835.
 The flowers are produced upon a pendulous raceme, that which bloomed at Mr.
 Bateman's produced five flowers. Each blossom is about two inches long, of a
 snow-white transparency, having the tip slightly suffused with a sulphur colour.
 The genus consists of five charming species, viz., *B. candida*, *B. fragrans*, the
 flowers are produced upon an upright raceme which are delightfully fragrant, having
 the perfume of Jonquils or Narsisus's. It is a native of Brazil, where it is found
 growing upon the loftiest branches of the Cedrela tree, and the flowers are
 produced in vast profusion, their fragrance is so powerful as to give a delightful
 perfume to a considerable extent around it. *B. rigida*, found in Brazil, pro-
 ducing its flowers in a long, stiff, erect raceme, the summit of which is ter-
 minated by a cluster of five or six blossoms, of a pale pinkish size, they have the
 delightful fragrance of yew. *B. rubescens*, a native of Peru, where it is
 found growing upon the trunk of the Calabash tree, the flowers are produced
 upon an upright raceme, of a beautiful white, spotted with rose colour. They
 are produced most abundantly, and in blossom nearly all the year. *B. venusta*,
 a native of Brazil, producing its lovely flowers upon a pendulous raceme.
 They are of a snowy-white, slightly suffused with pink. The plant blooms so
 profusely as to be literally loaded, heaving beneath the heavy clusters.
Burlingtonia, named in compliment to the Countess of Burlington.

2. **DELPHINIUM TENACISSIMUM**, slender-branched (Brit. Flow. Gard., 366.)
 Ranunculaceæ; Polyandria Trixynia; **Synonym**, *D. divaricatum*. A hardy
 annual *Larkspur*, a native of Greece, near Athens. And has bloomed in the
 Chelsea Botanic Garden. The plant grows about a foot high, much branched,
 producing medium sized blossoms of a rich purple colour. *Delphinium* from
 Delphi, a Delphian; the nectary is supposed to resemble that fish.

3. **EPIDENDRUM CRASSIFOLIUM**, Thick leaved. (Bot. Mag., 3543.) Or-
 chidaceæ; Gynandria; Monandria; **Synonym**; *E. ellipticum*. A native of
 Rio Janeiro, producing erect spikes of rose coloured blossoms, making a showy
 appearance. Each blossom is near an inch across. This species has been
 figured in Loddiges' *Botanical Cabinet*, under the name of *E. ellipticum*, and
 which Dr. Lindley refers to his *E. crassifolium*; Mr W. Hooker is of opinion
 that they are not the same species, the former being a native of Brazil, and
 the latter of St. Vincents. *Epidendrum* from *epi*, upon; and *dendron*, a tree;
 the native habitation.

4. **HEUCHERA CYLINDRICA**, cylindrical. (Bot. Reg., 1924.) Saxifragaceæ;
 Pentandria, Digynia. A hardy herbaceous perennial plant, a native of North
 America, grows in dry mountain woods. The flowers are apetalous,
 upon a small panicle. The species was discovered by Mr. Douglas.
Heuchera, in compliment to J. H. Heucher, professor of Medicine, Wurtem-
 burgh.

5. **HIPPEASTRUM AMBIGUUM**, var. *longiflora*; Knight's Star-lily. (Bot.
 Mag., 3542.) Amaryllidææ; Hexandria; Monognia. This very splendid
 flowering species has bloomed in the Glasgow Botanic Garden. It was sent
 there from Lima, by J. Maclean, Esq. The scape contains several blossoms,
 each being as large as the common white lily of the gardens. They are white,
 veined, streaked with red, and greenish towards the bottom of the tubular part
 of the flower.

ISMENE AMANCAES, *Narcissus* flowered. (Pax. Mag. Bot.) Synonym, *Pancratium*; *Amancaes*; *Amaryllidea*; *Hexandria*; *Monogynia*. A native of the hills of Amancaes, near Lima, in Peru, where it grows in vast abundance, producing a profusion of its fine yellow flowers. It was introduced into this country in 1804. It merits a place in every stove collection of Liliaceae plants. The plant grows about two feet high, sending forth a single stem, near a yard high, containing several flowers, each about six inches in diameter, delightfully fragrant. The limb portion of the blossom is about four inches across. It is cultivated by Messrs. Rollinsons, Tooting Nursery. *Ismene*, Ismene, daughter of Œdipus.

7. **LILIUM PEREGRINUM**, Narrow sepalled white Lily. (Fl. Gard., 367.) Liliaceæ; Hexandria; Monogynia. An old inhabitant of the gardens in this country, but which has nearly disappeared. It is, however, cultivated in the very select collection of R. H. Jenkinson, Esq., Norbiton Hall, Egston, Surry. The flower stem rises about a yard high, terminating in a spike of ten or twelve flowers. They are campanulate, drooping, of a pure white. Each flower is about three inches long.

8. **ŒNOTHERA FRUTICOSA**, VAR. **AMBIGUA**. Shrubby Evening Primrose. (Bot. Mag., 3545.) Onagrarica; Octandria; Monogynia. Dr. Hooker describes the following varieties, viz.:—*O. fruticosa vera*, *O. f. ambigua*, *O. f. phyllopus*, *O. f. incana*, *O. f. Frazarii*, *O. f. linearifolia*. *Œnothera fruticosa*, is a species, widely extended throughout North America, from Canada to Carolina; but so variable in its foliage and hairiness, as to have suggested the idea of their being the several species above enumerated. All of them are handsome border flowers, and flower yellow blossoms, which continue for a long time. Any of them would be very singular in the flower garden.

9. **ONCIDIUM CRISPUM**, (Lindley's, and others in this country.) Orchidaceæ; Gynandria; Monandria. A very interesting and handsome species is a native of Brazil, and has been introduced into this country by Messrs. Harrison, Esq., Liverpool, Messrs. Low, & Co., London. Each blossom is two inches, or upwards, across, of a dark chestnut-brown colour, most singularly handsome, and stalk produced from fifty to sixty flowers. This very interesting genus abounds in the being unrivalled in its tribe. This very genus discovered, where the air is tropical parts of America, and are found at an elevation of fourteen thousand feet above the sea. There are many handsome kinds already introduced into this country, some of which are but of a few years' growth. One species, *O. nubigenum*, has been discovered, where the air is nearly freezing, on the mountains of Peru, at the recent importation. One species, *O. ornithorhynchum*, a native of Mexico, produces a beautiful rose colour. *O. lunatum*, a beautiful little species from Demeter. There have been many other fine species discovered which have not yet been sent to this country, viz.:—*O. macranthum*, from Guayaquil; *O. pictum*, from Peru; *O. tigrinum*, from Mexico; *O. deltoideum*, from Peru; *O. gracile* from Brazil; *O. isopterum*, from Brazil; *O. leucophilum*, from Mexico; *O. lunatum*, from Demeter; *O. maculosum*, from Brazil; *O. Martianum*, from Brazil; *O. ramsum*, from Brazil; *O. reflexum*, from Mexico; *O. ramiferum*, from Brazil; *O. retusum*, from Peru.

10. **POTENTILLA THOMASII**, Thomas's Cinquefoil Rosaceæ. (Brit. Flow. Gard.) Icosandria; Polygynia. This is far the handsomest of the yellow flowered kinds. It was discovered by M. Thomas, a botanical collector, on Mount Pollina, in Italy. It is cultivated in the very superb collection of Mrs. Marryat, Wimbledon, where it bloomed the last season. It is quite hardy, and certainly merits a place in every flower garden. The plant grows about one foot high, and crowned by large corymbose heads of fine lemon coloured flowers. Each blossom is more than an inch cross.

11. **ROSA SINICA**, Three-leaved China Rose. (Bot. Reg., 1922.) The plant is well deserving a place against a good aspect wall, or similar situation. It grows rapidly, and is well suited as a climber for covering a wall or trellis. The foliage is of a shining green. The flowers are produced in profusion of a pure snow-white. They are single, but being so beautifully white, and each more than three inches across, renders it highly ornamental. The rose is

much esteemed in the south of France and Italy, where it is very generally grown in the gardens. The plant may be obtained of Mr. Wood, of Maresfield, Sussex.

12. *SISTRINCHIUM SPECIOSUM*, Showy flowered. (Bot. Mag., 3544.) Iridae; Triandri-regularly beca. A very pretty, flowering, greenhouse species, a native of Sent principle, plants has recently been imported into this country, by Mr. with itself. Why variable? Royal Highness the Duchess of Gloucester, Bagshot of taste? Bec. push naty it is found on sandy hills, where it blooms pro- the componelowi about two inches across, of a splendid purplish-blue, simple un- may be the centre. The stems rise about eight inches high. It ward from all in every greenhouse. The plant has bloomed in the Glasgow esque lsea, 7 n.

Tradescantia caricifolia, Selge-leaved Spider-Wort. (Bot. Mag., 1804.) Commellinæ; Hexandria; Monogynia. The species is a native of the Cape of Good Hope, from whence it was sent to this country, by the late Mr. Drummond. It was introduced into the Glasgow Botanic Garden, in a cool frame. The flower stems rise about a foot high, producing an umbel of many flowers, of a purplish blue colour, each flower being near an inch and a-half across. This, like all the spider-worts, is a very neat and pretty flowering plant. *Tradescantia*, in compliment to Mr. John Tradescant, gardener to King Charles the First.

14. *TRIGONIDIUM ORTUSUM*, Blunt petalled. (Bot. Reg., 1923.) Orchidaceæ; Gynandria; Monandria. This singular species of the orchideous tribe of plants has been sent, by Mr. Colley, from Pomerania, to R. Bateman, Esq., of Knypersley Hall, Congleton, Cheshire. The genus belongs to the sort of Maxillarie like plants, but the flowers are sufficiently distinguish it as a genus. It is of a free flower habit. The flower are near two inches across, white, and orange-brown with purple veins. *Ters. luidium*, in allusion to the triangular form of several parts of the flower.

15. *Streletia uniflora*, One-flowered. (B. Reg., 1921.) Liliaceae; hexandria; Monogynia. An half hardy, bulbous plant, a native of Mendoza, where it was discovered by Dr. Gillies. Each flower is about an inch and a-quarter across, white, with a delicate sky-blue tinge. It is cultivated by Mr. Lowe, of Clapton Nursery.

16. TULIAGHIA LUDWIGIANA, *Bot. Mag.*, 3547. Liliaceae; Hexandria; Monogynia. This plant was introduced into this country in 1834. It is a native of Caffierland, South Africa. Scape grows about two feet high. The flowers are produced in a umbel, about eight in each. The perianth is greenish purple, with purple streaks, the limb six parted. The inner part forms a crown at the mouth of the tube, of a fine yellow colour.

17. *WITSENIA CORYMBOSA*, Corymbosae, flowered. (Pax. Mag. Bot.) Iridae; Triandria; Monogynia. A native of the Cape of Good Hope, well deserving a place in every greenhouse. The plant produces a profusion of flowers, in dense corymbs, of a lively bright blue color. It blooms from August to the end of the year. *Witsenia*, from Mr. Witsen, a Dutch Consul in India.

18. VERBENA ACHILETIA, VAR. DRUMMONDI. (Reg. 1925.) Verbenaceae; Didynamia; Sweet Lilac Vervain. (Bot. Angiospermia. This very pretty variety has been recently introduced into this country from Louisiana, from whence it was sent by Mr. Thomas Drummond. This variety is very different from the variety which has been in our collections in the country for the last two years, the flowers of that variety being of deep rose colour, whilst the present variety has flowers of a beautiful pale lilac. They have a peculiar fragrance. The plant is a half hardy perennial plant, deserving a place in every flower garden. Messrs. Rollissons have plants of this pretty variety, where we saw it in bloom the last summer.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE MANAGEMENT OF ERICAS.—I shall esteem it some Correspondent of the *Cabinet* would give me the particulars of treatment with Ericas, so as to keep the plants bushy and healthy. I have had frequent renewals of plants, purchasing bushy ones, but those I have kept them in an airy part of the greenhouse, and to the best of my knowledge, have treated them with a regular supply of water, &c., yet they soon become naked, and in two or three years died. I have invariably found too, that a great quantity of my large plants, bought at a distance from my own residence, have soon died after removal. How is this to be accounted for? Would small plants be likely to succeed better? I beg in this place to thank the Correspondent, "A Practical Heath Grower," for his very excellent remarks on Ericas in the January number. If the same person, or others, practically acquainted with the subject, will favour me with a reply, I shall be greatly indebted for such kindness.

North Wales, January, 1837.

W. P. HAMILTON.

ON IPOMOPSIS ELEGANS.—I have sown of this handsome flowering plant for the last year, without any success. This has invariably been the case, when, on a flower border, I shall be obliged if some Reader of the *Cabinet* would give me the particulars of a successful mode of treatment. An early answer to my request will be an additional kindness, so that I may be successful the coming season. This plant did go by the name of *Gilia aggregata*, two or three years since. I name this lest any of the Readers should not know it by the name.

Nottingham.

MEDICUS.

ON A LIST OF ROCK PLANTS.—Will you, or any of your Correspondents, be kind enough to give a list of some of the best rock plants? A list of their kind, and flowering at different seasons is desirable. The rock plants of the West of Scotland are of various species.

has a well known rose. I would be obliged to your Wilts Correspondent, whose initials

To "J. K."—My own, J. K., (and who I humbly thank for his honourable mention of my name in last month's *Cabinet*), if he would favour me, at his convenience, with any list or hint he may deem it prudent to let me know of; and he in return may, with every liberty, put any question to me on any subject on gardening, &c., he may consider me likely to know; my knowledge is not much, but what I know I will freely communicate.

J. KERNAN.

4, Great Russell-street, Covent Garden, London.

REMARKS.

ON TREE MIGNONETTE.—Sow seed of the common Mignonette, towards the end of February, in pots of the size thirty-tvos, such being near six inches deep, and four and a-half diameter, inside measure. Use a good rich, warm soil. After the seed is sown, place the pots in a cucumber or melon frame. When the plants are up, they must be placed where they can get air, to prevent them being drawn up weakly as well as to preserve them from damping off. When the plants have made a few leaves, pull up all the plants but two, which must be allowed to remain till they get over danger from damping off, when the best may be retained and be secured to a support. As the plants grow, side shoots will push, they must be plucked off, always leaving the leaf at the

base of each shoot which contributes to its growth. If the leading shoot should shew flower it must also be pinched off. When the plants have grown ten or twelve inches high they may be removed to a warm part of a greenhouse. Water must be given when the plants are dry. As the season advances the plants gradually become in more airy situations, which will gradually harden them. The plants have reached a desirable height, from half a yard to with itself. Why? Because; pinch out the leads. This will induce a number of of taste? Because; push and form a bushy head. Plants thus treated will bloom the coming spring; after they have shewed flowers, the plants, if simple and may be removed, with balls entire, into pots a size larger, they will ward from all the season.

T. T. B.

esque *Idea*, Jan. 12th, 1837.

ON BLOOMING HYACINTHS IN GLASSES.—The bulb should be allowed to touch the water, then be placed in a dark room or cellar for two or three weeks. The water will by that time become offensive and require to be replaced. With the fresh water given add a small portion of salt, about the size of a hazel nut. The water must be changed, and salt added twice a week in future. When the glasses are brought out of the dark room or cellar into a sitting-room, the plants push more rapidly and flower sooner by being kept in the darkest part of the room, and if in a high situation, as a shelf or chimney-piece, all the better. When the flower stem has pushed several inches high, the glasses may be placed near the window to give colour to the petals; without which the darker the situation the lighter coloured the flowers. In order to have the fine stems of flowers erect, I have had a wire frame made which fastens round the glass near its bottom, again nearer to its widened part at the top, the wire is then bent to the middle of the opening and the stem is tied upright to the height desired, to this the flower stem is secured, it will keep the flowers from overwhelming the glass as well as keeping the stem neat.

JOHN CHARLES.

Monmouth, Jan. 12th 1837.

JONES'S SULPHUREA ELEGANS DAHLIA.—We have been informed that an old and very inferior flower called Sulphurea Elegans, has been sent out last season as a substitute for the former splendid sort. The old sort is not worth growing in any collection, whilst the latter deserves to be grown in every one. The flower is of a very large size, of an unique handsome colour, a very perfect shape, and far superior to any other of the yellows I saw at the exhibitions in the metropolis, or the country during the last season. Persons who order this kind during the present year, should obtain the warranty of the correctness of the seed and from the person offering for sale.

Wallingford, December 16th, 1836.

TO OBTAIN FLOWERS FROM BULBOUS ROOTS IN THREE WEEKS.—Put quick lime into a flower-pot till it is rather more than half full; fill up with good earth; plant the bulbs in the usual manner; put the pot in a warm damp. The heat given out by the lime will rise through the earth slightly temper its fierceness; in this manner flowers may be obtained in three weeks.

HEATING BY MEANS OF HOT WATER.—I have recently seen an experiment tried in using glass pipes instead of iron, and which answered most completely, it longer.

ON DRYING PLANTS.

I observe that the weights I use in drying plants have been misprinted in the December number. They should be, one weight of 20lbs, and two of 10lbs, each.

PRIMULA SCOTICA.

ON THE AGE OF TREES.—Adamson and De Caudolle have ascertained and published accounts of the probable longevity of numerous celebrated trees. Some of the Cedars of Mount Lebanon, measured in 1660, by Maudrell, and Pocock, were found to have been nearly 800 years old. The Oak of Welbeck Lane, described by Evelyn, must have been 1400. The Olive trees in the garden of Jerusalem certainly existed at the time of the Turkish conquest of that city. The English Yew trees of Mountain's Abbey, Yorkshire, have survived

mediate between the deeper and brighter tints, consequently affording a foil to all. Why is snow injurious to the effect of foliage, or flowers, of every graduated tint? On account of its glaring whiteness, supplying neither contrast nor harmony, white entering into the composition of every shade of tint, and particularly being productive of semi-colours; consequently, being a component principle, when uncombined it can neither harmonise, nor contrast with itself. Why does the olive tint of the expanding oak-leaf offend the eye of taste? Because, its being composed of green in combination with yellow, the component principle can neither harmonise nor contrast with itself, in a simple uncompound tint, in the surrounding grass, or foliage of more forward trees. Why does the verdant herbage of spring produce inferior picturesque effect, in grounds ornamented with trees, than the sterile grass of early autumn, consequent on mowing? Because, spring grass and foliage are gradations of one and the same colours; consequently, in whatever variety of gradation, the diversified tints of any colour, neither harmonising nor contrasting, cannot possibly be productive of picturesque effects. Contrariant is the effect of sterile grass, on account of its russet tint, like ripened corn, presenting advantageous contrast; russet being a semi colour, uncompound of green. Countless natural phenomena, with their solutions, might be multiplied, illustrative of the preceding theory of colours being of practical utility in gardening.—*Dennis's Landscape Gardening.*

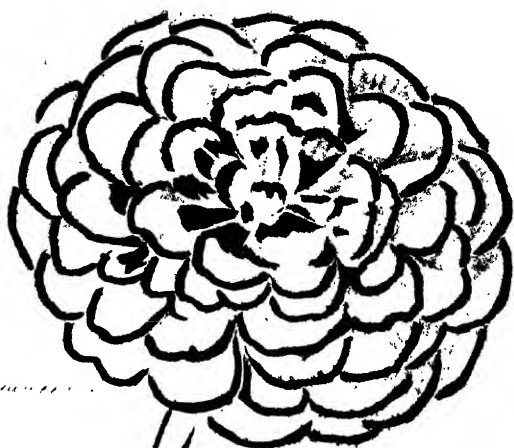
ARICULA.—Nature has given such a finish to the finer specimens of this plant, that art may well be required to furnish them with the shelter of a roof. Some of the family are hardy and beautiful as spring flowers on the open borders; but the more delicate cannot endure the pelting of the rain which falls in April, the season of their beauty; a glass frame is therefore essential to the saving of the fine meal with which the flowers and sometimes the leaves are covered, and which seems designed to moderate the heat of the sun, but which has in itself no defence against the washing of the rain; and hence those plants which are brought to great fineness by cultivation, soon perish or grow poor when neglected. The best specimens at first raised from seed are quickly propagated by offsets from the roots; and as cultivators have great tenderness for their young brood, you have only to open an asylum and it will soon be filled. It were vain to attempt particular descriptions of five hundred varieties. As to the general properties of a good plant, the stem should be of such length as to carry its head of ears erect, and well raised above the foliage. About seven or eight pips, or single stamens, will make a rich and close umbel of flowers. The circumference of the border of each blossom should be round, the anthers large, the eye smooth, white, and circular; the ground colour should be equal on all sides, defined next the eye, and only broken where it blends with the edging. The favourite ground colours are—black, purple, dark brown, rich blue, bright pink, crimson, or glowing scarlet. A green edging is fine, but that combined with a crimson ground colour, being very rare, is, probably on that account, prized the most. Florists have given receipts for compost with trifling exactness, or invalids who pore upon dietetics and weigh their food. Sound earth, vegetable earth, peat earth, decayed willow-wood, and wood ashes, are recommended in proportions, from half, down to twelfth and twenty-fourth parts. No doubt such a commixture may be very good, but some other will do just as well. Let the compost be rich and light: consisting of one half of old rotted cow's dung, either from a spent hot-bed gathered from the fields, and the other half black mould from the garden, add more or less of peat moss and sand according as the soil is light or heavy; the whole mass to be so blended as to assume a uniform consistence. With this, fill the flower-pots within an inch of the top, taking care to cover the bottom with a piece of slate to prevent the intrusion of worms. The pots should be six or seven inches wide and about the same measure in depth. Smaller ones may be used for bringing forward young plants, when other seedlings or offsets. The proper time for planting or re-potting, is in August. Strip every plant of its decayed leaves and of all stumps of roots here, with the young fibres, and having firmed the earth with the hand give a plentiful watering. The pots may then be closely set together in the frame, which should be half filled with saw dust, in which the pots are to be immersed to the lip. The glass cover may be put on at the first to encourage striking, and then kept on or off according to the weather,

using the help of a bass matting in every hard frost. Before winter, fill up the vacant inch left on the surface of the pots with old dung gathered from the fields, which replace with fine mould about the time of flowering. To destroy green fly, with which the plants are apt to be infested, a slight cloud of tobacco fumes closed for a few minutes under the glass cover is all that is necessary. Other flowers in congregated array may be more dazzling, but the auricula so exhibited has no rival in soft, rich, and diversified beauty. It has more of dignity than gayety; it has not the tinsel of a theatre, but the jewellery and grandeur of an assembly of nobles and high dames, in broad ruff, powder, crimson, purple, and ermine. The sight justifies the art: art cannot make the purple of the auricula, but without art the auricula has not the purple; and the finest forms left to the common fare of earth and skies, soon become the spectres of what they were—the gorgeous velvet dwindling to the meanness of hawksweed, and the crown-broad disk to the dimensions of a daisy.—*Manse Garden.*

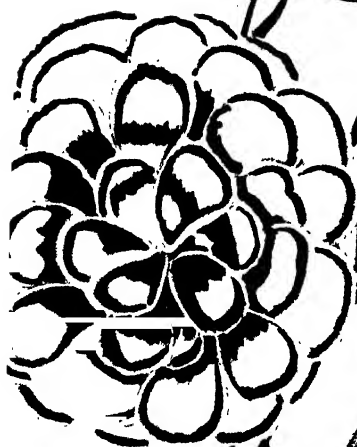
THE LILY.—Of which there are many varieties, but a few of the best are the large common white, growing four or five feet high; (the small white flower, not unfrequently called lily, is a Narcissus;) the orange lily, which takes its name from its colour; the fiery lily, which may be known by the bulbs it bears on the stalks; the martagon, or Turk's cap lily, of which there are many sorts, and which are named from the turning in of the petals presenting the figure of a turban; the tiger, and the crown imperial. The bulbs are scaly and do not agree with the treatment of hard bulbs. If kept long out of the ground they must be placed in sand to prevent drying. The proper season for planting is September; planted in spring they are apt not to flower that year. But the best rule with all the tribe, is to observe when the leaves begin to decay after the season of flowering, and then to take them up, whether to give more room or fresh soil. They are too monstrous for beds and do best either in single plants or in patches at intervals. The crown imperial, though not the most showy of lilies, is a grand and elegant flower, and remarkable for its rapid growth at an early period of the spring. At that season of all food it is the most enticing to snails. Being horribly olefant and juicy, it is probably to their palate what garlic is to a Spaniard. But unfortunately for the plant, being fissular, the snail perforations, resembling those of a flute, admit the air direct to the heart, and death is the consequence. Early in spring scoop out the earth around the stems, and with it the slimy people sleeping beside their banquet. Put a roll of stiff paper round each stem, not tight, and fasten it with a pin; then draw in the principle, leaving the paper two inches higher. The snails do not find their way over.—*Ibid.*

REFERENCE TO PLATE.

The superior kinds of Pinks and Picotee given this month are seedlings in the possession of the persons who raised them, and who offer them for sale. They have been advertized in the *Cabinet* for October and November, last year. We have been informed, by persons who have seen the flowers, that they are of first rate excellence, and ought to be in every collection of this class of flowers.



Double carnation



Double carnation



Double carnation

Double carnation



THE FLORICULTURAL CABINET,

MARCH 1st, 1837.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.—ON TENDER AQUATICS.

BY C. D. B.

THE enquiry of your Liverpool correspondent under the signature of Escholtzia, respecting plants which would grow in a tank of tepid water, (such as is frequently attached to steam engines,) induces me to trouble you with the following observations; which I hope may meet the eye of some lover of flowers at Birmingham, Sheffield, Leeds, Liverpool, or Manchester, and induce him to make an experiment, which I think can hardly fail of success. Every one at all acquainted with stove plants, is aware of the exceeding beauty and magnificence, of the tropical water plants, even when confined to the narrow pots and pans, and cisterns, to which the limits of our hothouses generally restrict them. Now it is most probable that these plants would flourish with even more than native luxuriance, in the warm water tanks attached to steam engines. They delight in extreme heat, and will bear any temperature short of 100 degrees; about 85° to 95° during summer suits them best, and in winter from 60° to 65°; and some species will not flourish, without a continual change of water, which it is almost impossible to provide in a common hothouse or pit; but, which, might always be ensured by constructing a large tank, and allowing the hot waste water from a steam engine to flow into it. In case any of your readers should be willing to try the experiment, and it is indeed one well worth trying, (for the magnificent plants in question are rarely seen in any tolerable beauty in this country,) I add the following suggestions:—

The tank should be in a situation to receive plenty of sun, and should be covered with cucumber lights, to prevent the blacks from the engine, and the inclemency of weather, from injuring the buds and leaves, as the flowers of several species arise above the water, and would never endure the air of our climate even in summer. The plants should be planted in very large pans, 1 foot deep and 18 inches across

at least. These pans should have a layer of broken brick and some clay about 4 inches thick at the bottom, and be filled with stiff pond mud, or strong yellow loam, fit for growing melons, and the surface of the mud should be covered with stone and broken brick. The pans should be sunk, not less than one foot nor more than three, below the surface. Some species must not be more than six inches under, but most of the strong growing ones, from two to three feet. I should leave them always under water unless experience shewed, that any species perished in winter, which I do not think probable, unless it were *Nelumbium speciosum*, but I suspect this, which is difficult to keep elsewhere, would survive in such a situation.

The waste water should run off by a siphon from the bottom of the tank, so as always to draw off the coldest water, and if the heat was found too great for the plants in winter, when they die down, the waste might then be allowed to flow off at the top, so that the bottom water in which the plants were sunk might be coldest.

The species I should recommend for the experiment are *Nymphaea Lotus*, *N. rubra*, *N. cœrulea*, *Nelumbium speciosum*, *Euryale ferox*, *Pontederia crassipes*, and *Limncharis Humboldtii*, but particularly the five first, which are strong growing plants. *Nymphaea Lotus* grew almost like a weed with me last year. The best season to put them in would be March, as the offsets abound most at that time, and some would flower in May. Some gold and silver fish, in the same place would be highly ornamental, and consume the filth of the engine.

Of course the plants will not succeed if the boiler of the steam engine is of copper, or if the temperature of the tank ever much exceeds 90°, but by proportioning its surface to the supply, this might easily be managed. If the glass case be high enough probably many *Orchidea* would succeed suspended over the water in the same place. One might be constructed to cover a small reservoir. I hope the above will meet the eye of some one able to make the experiment, and who will communicate his success.

ARTICLE II.—REMARKS ON THEORY AND PRACTISE,

With some Observations on the Food of Plants, &c.

BY JOSEPH HAYWARD, ESQ., LIME REGIS, DORSETSHIRE.

YOUR Floricultural Cabinet I think well calculated to make a valuable work if you adhere to the proper principle, and it appears to me you have it in view, which is, to diffuse a knowledge of the cultivation of Plants deduced from practice. The object of every cultivator is to produce certain effects; and when people undertake to produce any effect, who do not know the cause, they generally form some supposition of what the cause is; such supposition forms Theory, which may be true or false, and as the latter is too often the case, the students of every art, are apt to treat Theory with contempt, and to depend upon the

knowledge to be required, by imitating a practitioner ; but the knowledge to be obtained from mere practise, however successful, is little to be relied upon ; for although the cause of success may assist, the practitioner may be ignorant of it, and therefore, although the same practice may be followed in another situation, it may fall altogether, because the cause is not there established. If it be an axiom, that every production of nature and of art, is the effect of some cause—it must follow, that before any effect can be produced, the cause must be established ; and before any effect can be effectually prevented, the cause must be removed ; and consequently, before any person can establish or remove a cause, they must know what it is. Then how is a knowledge of the causes of effects to be obtained ? Certainly by no other means than by first forming a Theory, and then putting it to the test of practical demonstration, to ascertain its truth or falsehood. If a theory be thus proved to be true, the knowledge of it is science. I consider the causes of all effects to be certain elementary principles established in nature, and which are brought into action or rest, and made to exist in a separate or combined state, and to undergo certain changes in form and duration of their existence, by certain immutable laws of nature. My efforts have long been directed to the ascertaining the true causes of the different effects it is desirable to produce by the cultivation of plants ; as well as the true causes of those effects, it is desired to prevent ; and for this purpose, I have not only put my own Theories to the test of repeated practical experiment, but also most of the Theories of the celebrated Physiologists and Chemists, and practical Professors of Horticulture. And in this, all who have done me the honour to visit my garden, admit, that I have established many important principles of practice : my practical elucidations are more particularly exhibited in the training and feeding of fruit-trees ; I say *feeding*, because it is an obvious fact, not only that plants require food, to sustain them, as much as animals do, but that their growth and productions are determined by the quality and the quantity of the food they are supplied with. As to give such an explanation of the nature and properties of different soils, and of different manures, or the elements of the food of plants, would occupy more of your pages than you can afford, you will probably allow me to refer such as wish to make a minute enquiry into those subjects, to a little work I have lately published, “On the Causes of the Barrenness and Fruitfulness of Plants and Trees.” I will, however, beg leave now to offer the 9th law of nature, in my arrangement, for the immediate consideration of your readers, and shall be ready to give any further information in my power : the 9th law “The leaves form the excretory Organs of a Plant or Tree ; and whether the supply of food be great or small, a plant or tree cannot attain, nor sustain itself in, a perfect state of fructification, until it is furnished with a surface of leaves duly proportioned to the sap supplied by the roots. To enable them to perform their functions, it is

also necessary that the leaves should be duly exposed to the action of light, and to the influence of the sun and the air." Now according to this law, it must be obvious that the cutting back and shortening the branches and lessening the quantity of leaves, must obstruct and retard, rather than forward the production of flowers, seeds, and fruit; and yet this is a general practice. It generally happens, that when a plant grows luxuriantly to leaves, branches, and stalk, it is but little inclined to produce blossoms; we may therefore justly conclude, that in such cases there is a greater supply of food than the leaves are equal to; and that although we cannot enlarge their powers, we can relieve them in their duties, by lessening the supply of food, and thus promote fructification.

Lime Regis, Dorset, January 10th, 1837.

(We feel assured our readers, will with us, be much obliged by any further remarks of Mr. Hayward's.)—CONDUCTOR.

ARTICLE III.—ON A LIST AND TEMPLE OF ROSES.

BY S. W. E. SMITH, LEAMINGTON, HANTS.

A Correspondent, Pedro, requested a list of Climbing Roses, a very superior list is given in this month's *Cabinet*. I have in my own garden a Temple of Roses, it consists of eight posts, ten feet high, connected at the top by iron rods. To each post are two climbers, most of which have grown to the top within six months. They are the White Banksia, Yellow ditto, Rosa Ruga, Rosa Russelliana, White Boursault, Purple ditto, Grevillii or seven sisters, Rubra, sweet scented Red Multiflora and White ditto, Rosa Clair, White Noisette, Pink ditto, Purple Grevillii, Dark double China, Pale ditto.

The centre of the bed is a rich mould, and manure is now laid plentifully on it, which will be forked in next spring, and then I shall cover the bed again with moss; all sorts of dwarf Roses are planted in the centre, a border of wild camomile I have been recommended to keep round the edge, to prevent the aphids, but my children carry all the lady birds they can find to the temple, and I have no doubt I shall keep the trees clean and healthy.

ARTICLE IV.—ON THE CULTURE OF THE PANSY.

BY PENSEE.

By following the method recommended in your December *Cabinet* by Mr. Todd, for propagating the Heartsease, I think it would be found that by taking off the young suckers as they appear breaking through the ground, you would rob yourself of your finest blooms, to say nothing of the trouble of making each cutting as taken off, and the chance of an unsuccessful strike.

I therefore offer to your readers the plan I have adopted, and with much success. When the plant begins to spread, which is about June, I throw into the centre of each a double handful of rich and finely

sifted mould, thus inducing the plant to form roots near the surface. Early in September I take up the plant, wash the root from the dirt, and divide it, seldom obtaining less than two dozen plants from each, and often many more. These I plant about three inches apart, where they remain until wanted for the late Autumn or Spring planting, having found it necessary to plant at both these seasons, to procure fine blooms for exhibition both in April, May, and June. I should also recommend a much richer compost than Mr. Todd thinks necessary, and not to attempt to bloom plants a second year.

I must also join issue with Mr. Todd in his recommendation of removing as much earth as will adhere to the roots, when transplanting from his nursery into the blooming bed, as possible; because I have found the very reverse to succeed best. I have given each way a fair trial, and I now always wash and shorten the roots before planting.

(Continued from page 10.)

ARTICLE V.—CULTURE OF PELARGONIUMS.

BY MR. APPELBY.

THIRD Section.—Species that have been hybridized.—This section of Pelargoniums is the most numerous, not so much in plants that have specific botanical distinctions, as in varieties raised from seed obtained from plants, the pollen of which has been mixed with others; these varieties are almost endless, and are produced annually, chiefly by nurserymen near London.

On account of their easy culture, they are in great request for the greenhouse, flower garden, and windows, both of the cottager and his more opulent neighbour, and as this class of flowers affords a cheap, lasting, and innocent pleasure to so many individuals, I hope I shall be pardoned by my intelligent brethren, whom, of course, I do not presume to instruct, if I am rather particular in directions in the culture of these charming flowers.

As this section is cultivated both for the greenhouse, and flower garden to plant out in beds, I shall divide the culture into

1. Propagation.
2. Greenhouse management.
3. Flower Garden management.

1. *Propagation by Cuttings.*—The best cuttings are the young tops, taken off at the third or fourth joint, and the two lowest leaves pared clean off with a sharp knife, if the kind to be increased is scarce, cuttings of any one year old wood may be struck, provided they have two joints, one to be put in the soil, and the other to grow, but such cuttings do not make such neat bushy plants. Cuttings of the roots also will grow, if taken off in pretty large pieces, with some small fibres attached to them. The soil for cuttings I have found to do the best, is pure loam mixed with fine sand, which insure closeness round the cuttings without any fermenting substance to rot the young and

tender wood. For choice kinds I use the smaller 60 pots, and put one cutting in each pot, by which plan I run no risk in potting. For commoner kinds, when a cutting or two is no object, I use 36 pots, putting five or six cuttings in each, round the edge of the pot; and when fairly struck I pot them off into small pots, and put them into a frame and shade until fresh rooted.

The best season to put in cuttings, undoubtedly, is the month of March; cuttings made at that season and plunged out rather deep in their small pots in the open ground in June, and taken up and repotted before the frost sets in in Autumn, makes the best plants; they are stiff, bushy, dwarfish, healthy plants, and flower admirably the following spring. The month of July, however, is the season when cuttings are most plentiful, on account of the flowering season in the greenhouse being over, and many of the plants requiring cutting down. Cuttings made in July I pot off when struck, in pure loam in small pots, and plunge them up to the rims of the pots in coal ashes at the back of some low hedge or paling, shading them from the sun.

The best situation in which to strike the cuttings, is a small frame set upon a moderate hotbed, the dung to be covered with some sand or coal ashes three or four inches thick, and the cutting pots set upon them, shading with a thick mat during sunshine, and kept close for ten days or a fortnight, unless steam arises when the lights are propped up an inch or two in a morning. As soon as I judge they have formed their callosities, (a swelling at the bottom of the cuttings,) I gradually inure them to the full sun. I water very moderately until they are struck, when those that are in single pot I place in a shady part of the greenhouse, to harden a little previous to plunging out of doors.

When a large supply is wanted for the flower garden and I am short of room or convenience, I take of as many cuttings as I judge needful in the month of September, and keep them in the cutting pots until March, when I pot them single, and grow them in a pit or frame until the planting season.

Propagation by Seed.—When the seed is ripe I gather it and keep it dry until February or March, when I take 36 pots filled with a compost of rotten leaves, peat earth, and loam, in equal parts, well drained, the compost I press down pretty firm, and sow the seed rather thin, covering it with the same soil very lightly, placing them in the frame with the cuttings. When they have come up and have made their second leaves, I pot them off into 60 pots, and replace them in the frame until they are well established, when I take them into the greenhouse near the glass, gradually inuring them to the open air, and then I plunge them out, as I manage the cuttings in single pots above mentioned.

Both cuttings and seedlings when about four inches high should have the top buds nipped off, which makes them branch out three or

four shoots, and of course so many more heads of flowers the following season.

2. Greenhouse Management.—The season to take Geraniums into the greenhouse depends upon the weather, and as all Cape plants are much healthier, and flower more freely the more they are exposed to the full air, so long as frost keeps off I delay the taking them in, in fact this last season, I did not house them generally until the middle of October. Choice kinds I had covered up with mats or large sheets of canvass elevated on stakes, on such nights as were likely to be frosty. A few that shewed plenty of bloom buds I had taken up, potted, and placed into the greenhouse in September, and they are now in as fine flower, as to size and colour, as ever I had them in June instead of December.

Perhaps no months in the whole year are so unhealthy for Geraniums as November and December, for the weather generally is dark, damp, and rainy, and the plants being full of sappy green leaves, and having received a check from new potting, are often shedding leaves which I constantly remove, or they would become mouldy and give out a bad smell, offensive both to the owners and the plants themselves. At all times during the day I give as much air as possible, by opening the doors, windows, ventilators, &c. In the mornings I have made a fire to dry up damp, but allow it go out before the house is shut up or the remedy would be worse than the disease; close heat at this season being most injurious.

During the severity of winter, fire is necessary to keep out the frost, (when very severe both night and day,) but I am careful not to create damp by watering more than is absolutely necessary. It often happens on frosty days the sun shines clear and bright, and though the air is frosty, I always give air to lower the temperature of the house to admit fresh in and to dry up damp.

In January, I scrape off the top soil of the pots, and have them washed that are green with moss, picking all decayed leaves, trimming off any awkward branches on large plants, and tying up all that require it; then having at hand some light rich soil, I fill up the pots, and finally give a good watering. While they are off the stage, I have it cleaned down, and the house cleaned out, operations which are all conducive to the health, not only of Geraniums, but also of every other family of plants under glass, with the exception of succulents.

As the season advances they will generally begin to show flower buds, and as soon as I observe that, I consider they require potting, especially those in the small pots struck in July; this will mostly happen about the middle or end of March, but such as do not show flower, I do not repot, as that would encourage growth rather than flowering.

I may here state what I conceive to be the best soil or compost

for those plants to flower in; I have found the following to answer admirably: fresh loam from a pasture, cow dung and rotten leaves in equal parts, well mixed and turned over for twelve months. If heath mould is plentiful, I use about one-eighth in addition, which improves the colour of the flowers in potting, I take care to drain them well, and do not fill the pots quite full, which enables me to water them more effectually in the warm drying days of May and June.

In the spring months too much air cannot be given, and in consequence more water is required, which I bestow very liberally, frequently syringing over the whole plants, which refreshes them and prevents insects injuring them, though no kind of insects particularly affects the Geranium, if I except the green fly, which is easily destroyed by tobacco smoke. When the flowering season is over, and I do not want the plants for the flower garden, I cut them down, and as the sap will flow out of the wounds no water is given until the bleeding stops. If they are in too large pots I shake them out, cut off part of the roots, and pot them into less pots which is a sort of renewal of the plants. I take them out of doors as soon as I think the frosts are over to some place sheltered from the sun and west winds, setting them thinly upon a bed of coarse coal ashes two or three inches thick, which prevent worms getting into the pots. During summer I give water when it is required, and keep them clear of weeds, and when I observe they make roots through the holes at the bottom of the pots, I shift them into a fresh place, which is all the care they require until the autumn arrives, when they are sheltered from the frost in the greenhouse or in pits.

3. *Flower Garden Management.*—Part of the operations of this section has necessarily been described in the two former sections, the propagation and management through the winter being much the same, but as more plants are wanted of particular kinds for the flower garden than for the greenhouse, I find it necessary to preserve a quantity through the cold season in pits; we have here some pits covered with wooden shutters without any glass, which answers very well. On fine mild days the covers are quite removed, but little water is given, and all decayed leaves are removed as they occur, though they do not look quite so fresh and green as those in the greenhouse, yet sufficiently so to be fit to plant out when the proper season arrives. Some are preserved in ashes in the sheds and others hung up in a cool cellar. All these soon recover their verdure when planted out in summer, and those methods may be made use of by such amateurs as may not have the convenience of a greenhouse or pit.

The best season to plant out is about the first week in June, the frost generally being quite over by that time. In planting them out no preparation of the soil is necessary, as they grow quite fast

enough in any kind of soil however poor. In fact they flower much better if they are cramped at their roots, hence I put them out in their pots, plunging them two or three inches deeper than the rims of the pots. During very dry weather they will require watering about every other day, evening being the best time unless frosts in autumn are apprehended.

In arranging them in the beds I find small beds all of one kind, look much better than an indiscriminate mixture: not but such an arrangement looks very well, and in some cases is desirable. At the front of the entrance of Sheaf House there is a large plot of ground surrounded on the west side with hardy evergreens, this I fill during summer with geraniums, the largest I plant at the back and gradually lessen to the front. I plant these in a mixture, and certainly they are allowed by every one who has seen them to be very ornamental. During the time they require shelter the place is occupied by hardy evergreens kept in pots for that purpose. No kind of geraniums show better in beds than the old scarlet horse-shoe and its varieties which as they are all nearly of one colour and habit I plant them altogether, and they flower all the summer if kept well watered during dry weather. It perhaps would be desirable to some of your readers to give a few names of such as I have found to do well in the flower garden as bed plants.

Macranthon, a white ground, with pink stripes, flowers all the summer and autumn.

Daneyanum, a crimson, dark striped, flowers all through the season. This beautiful variety was raised by the late Mr. Daney, a florist, near London. It was one of the finest, if not the very finest, of those beautiful hybrid now so common. I have been credibly informed that, after he had bloomed it, Mr. Daney did not sell one until he had increased his stock of it to 200 plants, and then he sold it at 5 guineas a plant, thus realizing 1000 guineas by this still fine variety.

Moor's Victory, shaded scarlet, a good kind both for foliage and flowers.

Flagrans, or Lord Yarborough, a crimson shade, flowers freely all the year.

Humeii, A good kind for beds, flowers well all the year, I have it now in flower very fine.

Yeatmanianum grandiflorum, dark blotch, a good kind but rather small foliage, flowers well.

Grandissima, rose, dark spot, a large flower, makes large trusses and flowers all the year, a truly fine variety.

All these may be had of any respectable nurseryman from 6d. to 1s. each.

I have now described to you my method of cultivating Pelargoniums. Perhaps some of your readers may think me tedious, and

unnecessarily particular, but, to such, I shall only say that if you wish to succeed, you must take pains, and in proportion to the pains bestowed will be the success. To those who may think proper to adopt my plan as far as circumstances will allow, I will say persevere and you will succeed as I have done. My employers are satisfied, I obtained last year a great number of prizes at the Sheffield Horticultural Society.

ARTICLE VI.—ON THE CULTURE OF CYCLAMENS.

BY C. B. B.

Is by the sweet-scented Cyclamen (F. C. 1837, page 20,) Alpha means, the common Cyclamen Persicum, white with a crimson eye, it is so easily cultivated, that the wonder rather is, how he can have so mis-managed, without killing it, as to prevent it from flowering for three years. To grow it in perfection, the root should be placed just on the surface of a compost of equal parts of sandy loam, leaf mould and rotten cow dung, in a well drained pot, which diameter is nearly double that of the root itself, and placed in a light and airy situation, where it has little more than protection from frost. When it dies down, about June, the plant should be set aside in a cool place without water, till the end of August, when it may be replanted as above. I have found the following plan, recommended by Mr. Paxton, effective, though the reason for it is not obvious. Soon after the plants die down, I turned them into the open border, and allowed them to remain, until the nights began to be chilly, towards the end of September. By this time they had made both leaves and flowers buds, which soon expanded, when the roots were taken up, and potted as above. If the plants are kept in a close damp, or dark place, they will never flower.

The directions above apply nearly to all the genus, except that *C. coam* requires peat, and *C. repandum* is always difficult to keep when dormant. The common sweet scented Cyclamen, of South Europe, a rose coloured species, prefers more sandy leaf mould, and will bear any thing except frost, and a wet soil. It grows profusely in the Italian Islands, on the mossy banks which bound the vineyards.

ARTICLE VII.—ON FRAXINELLA, OR WHITE DITTANY.

BY A FLORIST.

Fraxinella is a living plant, that multiplies by its roots, as well as by its seed. We sow it in September, in naked earth, or in beds: if in naked ground, we take the precaution to choose a proper place, which is always at the end of a plot well loosened, and tractable, and covered with mould to the depth of an inch. There we sow it, either all over the surface of that narrow space, or in traces drawn by the line, at the distance of three inches from one another; then we cover it up with the same mould, as even as we can.

When the plant thus sown, comes up, if the season be very cold, cover the young sprouts with big straw, or dry dung. When it is good fair weather, uncover them in the day-time, and cover them up at nights.

When the Spring comes, water them, and weed them, as you see occasion; and when they are big enough to be set in their proper places, take them gently out of the ground, towards the end of March; carry them to the places appointed for them, and plant them according to art; remembering always the directions I gave above, of the way of planting Flowers of the large kind. Take care to guard their roots well with earth; water them, and after that, water and weed, as you see occasion; and, in the proper season, the flower will answer all expectations.

Fraxinella is a plant that shoots from its roots, stalks about two feet high, reddish, guarded with oblong leaves, ranged by pairs on one side, which terminates in one leaf. The summit of the stalks, bears flowers in the form of a spica, or ear; each of which consist of five leaves, of a purplish white colour, and variegated; in the middle of which, rises eight or ten purplish stamina, or therads.

After the flowers fall, there succeeds a fruit, composed of several grains, containing seeds pointed at one end, and of a shining black colour.

ARTICLE VIII.

A LIST AND DESCRIPTION OF GREENHOUSE AND HARDY CLIMBING PLANTS.

BY MR. JAMES BROWNE, DERSINGHAM, NORFOLK.

Having observed in the last number of the *Floricultural Cabinet*, a request of "Floras" to your correspondents, for a list of Greenhouse and Hardy Climbing Plants, I have endeavoured to comply, by sending the following for insertion, trusting that it will be found useful to your numerous readers:—

ABBREVIATIONS.

gh. greenhouse	climb. climbing, as Clematis.	decid. deciduous.	} whether shrubby or herbaceous
f. frame	twing. twining, as Ipomoea.	everg. evergreen.	
.... the same			

<i>Systematic Name.</i>	<i>Specific character.</i>	<i>Medium ht. in feet.</i>	<i>Time of flowering</i>
Ampelopsis, class 5, order 1, natural order Ampelidæ.			
cordata	climb. deciduous	20	April, May
hederacea	.. ..	60	June, July
hirsuta	.. ..	60	April, May
Aristolochia, cl. 20, or. 3, Asarinæ.			
sipho	twining deciduous	30	June, July
tomentosa	.. ..	20	.. ..
Arkansa	.. ..	20	.. ..
Asparagus, cl. 6, or. 1, Asphodeleæ			
scandens	gh. twining	6	May, June
Astephanus, cl. 5, or. 2, Asclepiadæ.			
triflorus	gh. twining	4	July, August
Atragene, cl. 13, or. 6, Ranunculaseæ.			
austriaca	climb. deciduous	8	June, July
americana	.. ..	12	May, June
ochotensis	.. ..	12	May, July
Bignonia, cl. 14, or. 2, Bignoniaceæ.			
capreolata	climb. evergreen	20	July, August
Billardiera, cl. 5, or. 1, Pittosporæ.			
scandens	gh. evergreen	12	June, August
longiflora	.. ....	15	June, September
fusiformis	.. ....	8	.. ....
Brunnichia, cl. 8, or. 3, Polygonæ.			
cirrrosa	gh. evergreen	6	June, July
Calampelis, (Eccremocarpus) cl. 14, or 2, Bignoniaceæ.			
scabra	climb. f. everg.	15	July, September
longiflorus	.. .. ....	12	.. ....
Caprifolium, cl. 5, or. 1, Caprifoliaceæ.			
italicum	twining decid.	12	May, June
etruscum	.. ..	20	.. ..
sempervirens	twining everg.	16	May, September
gratum	.. ..	20	June, August
pubescens	.. decid.	20	May, June
Periclymenum	.. ..	15	.. ..
japonicum	f. .. everg.	12	July, September
flexuosum	.... ..	20	.. ....
Douglasii	.. decid.	15	.. ....
longiflorum	.. ..	20	.. ....
occidentale	.. ..	20	June, August
Celastrus, cl. 5, or. 1, Celastrineæ.			
bullatus	climb. decid.	20	June, July
scandens	.. ..	15	May, June
punctatus	gh. evergreen	6	June, August
Clematis, cl. 13, or. 6, Ranunculaceæ.			
Flammula	climbing decid.	20	July, October
Massoniana	gh. .. everg.	16	June, September
glauca	.. decid.	12	April, May
chinensis	f. .. everg.	12	.. ..
australis	gh.	12	.. ..
Viorna	.. decid.	12	September
Simsii	.. ..	8	.. ....
florida	f.	10	April, Sept.
Viticella	.. ..	20	September
cirrrosa	.. everg.	12	March, April
balearica	f.	12	February March
odorata	gh.	10	.. ..
Cobæa, cl. 5, or 1, Cobæceæ.			
scandens	gh. .. everg.	30	June, September

<i>Colour of Flower.</i>	<i>Native Country.</i>	<i>Date of In- [roduction.</i>	<i>Soil and Propagation.</i>
Green	N. America	1803	Cuttings
....	....	1620	....
....	....	1806	....
Yellowish	N. America	1763	Layers, sandy peat
Purple	....	1799	....
....	Arkansa	1824	.... peat and loam
Green	C. of G. Hope	1795	Cuttings of root, sand and peat
White	C. of G. Hope	1816	Division peat and loam
Blue and Yell.	Austria	1792	Layers, sandy loam
Purple	N. America	1797	....
White	Siberia	1818	....
Scarlet	N. America	1710	Cuttings, peat and loam
Crimson	N. S. Wales	1790	Seed or cuttings, sandy peat
....	Van D.'s Land	1810	....
Blue	....	1823	....
Pink	Carolina	1787	Cuttings, loam and peat
Orange	Chili	1824	Cuttings or seed, loam and peat
Yellow	Peru	1825	....
R. Yellow	England		Cuttings
Orange	Italy		....
Scarlet	N. America	1656	.... loam and peat
Red	....	1730	....
Yellow	Canada	1822	....
R. Yellow	Britain		....
Red	China	1806	.... peat and loam
Orange	....	....	....
....	N. America	1824	....
Yell. and white	China	1826	.... loam and peat
Orange	Ft. Vancouvre	1821	.... peat and loam
White	Virginia	1759	Layers, peat and loam
Yellow	N. America	1736	....
Whitish	Japan	1837	Cuttings
White	France	1596	Layers
....	C. of G. Hope		.... sandy peat
Whitish	Siberia		....
....	China	1820	....
White	N. Holland	1821	.... peat and loam
Purple	N. America	1730	....
....	....	1812	....
Whitish	Japan	1776	....
Purple	Spain	1569	Seed
Whitish	....	1596	Layers
....	Minorca	1783	....
Purplish	E. Indies	1831	Seed, loam and peat
Purple	Mexico	1792	Seed, cuttings, peat and loam

<i>Systematic Name.</i>	<i>Specific character</i>	<i>Medium ft. or feet.</i>	<i>Time of flowering.</i>
<i>Convolvulus farinosus</i>	.. .. .	10	May, June
<i>Hermannia</i>	.. .. .	6	August, Sept.
<i>Decumaria</i> , cl. 11, or. 1, Myrtaceæ.			
<i>sarmentosa</i>	twining decid.	30	July, August
<i>Dumasia</i> , cl. 17, or. 4, Leguminosæ.			
<i>pubescens</i>	gh. twining everg.	6	August, Dec.
<i>Eustrephus</i> , cl. 6, or. 1, Asphodeleæ.			
<i>angustifolius</i>	gh. twining everg.	4	June, July
<i>latifolius</i>	.. .. .	4	.. ..
<i>Gelsemium</i> , (<i>Biguonia</i>) cl. 5, or. 1, Apocynæ.			
<i>sempervirens</i>	climbing everg.	6	June, July
<i>Hedera</i> , cl. 5, or. 1, Araliaceæ.			
<i>helix</i>	climbing everg.	20	October, Nov.
<i>canariensis</i>	.. .. .	15	.. ..
<i>Hibbertia</i> , cl. 13, or. 3, Dilleniaceæ.			
<i>volubilis</i>	gh. twining everg.	8	May, October
<i>grosulariaefolia</i>	.. .. .	6	March, August
<i>Ipomæa</i> , cl. 5, or. 1, Convolvulaceæ.			
<i>sinuata</i>	gh. twining everg.	6	July, August
<i>carolina</i>	.. annual	10	.. ..
<i>caerulea</i>	.. .. .	9	.. ..
<i>coccinea</i>	.. .. .	10	.. ..
<i>purpurea</i>	.. .. .	12	.. ..
<i>Jasminum</i> , cl. 2, or. 1, Jasmineæ.			
<i>azoricum</i>	gh. climb. everg.	6	April, August
<i>revolutum</i>	.. .. .	12	.. ..
<i>officinale</i>	climb. decid.	20	.. ..
<i>grandiflorum</i>	gh. .. everg.	12	June, October
<i>Kennedia</i> , cl. 17, or. 4, Leguminosæ.			
<i>rubicunda</i>	gh. twining everg.	10	March, August
<i>coccinea</i>	.. .. .	12	.. ..
<i>comptoniana</i>	.. .. .	10	.. ..
<i>Lophospermum</i> , cl. 14, or. 2, Scrophularinæ.			
<i>erubescens</i>	f. climbing	12	June, October
<i>rhodochiton</i>	.. .. .	15	.. ..
<i>Menispermum</i> , cl. 22, or. 10, Menispermæ.			
<i>canadense</i>	twining	10	June, July
<i>Lyoni</i>	climbing	10	.. ..
<i>Passiflora</i> , cl. 16, or. 2, Passifloreæ.			
<i>cærulea</i>	twining everg.	30	June, October
<i>maculata</i>	f.	4	.. ..
<i>incarnata</i>	.... ..	20	.. ..
<i>Periploca</i> , cl. 5, or. 2, Asclepidææ.			
<i>græca</i>	twining decid.	12	July, August
<i>Petunia</i> , cl. 5, or. 1, Solanææ.			
<i>phænicea</i>	f. climbing	6	June, October
<i>Sollya</i> , cl. 5, or. 1, Pittosporææ.			
<i>heterophylla</i>	f. climbing	8	June, September
<i>Tecoma</i> , (<i>Bignonia</i>) cl. 14, or 2, Bignoniaceæ.			
<i>australis</i>	f. climb. everg.	10	April, July
<i>radicans</i>	.. decid.	30	July, August
<i>grandiflora</i>	gh. .. everg.	20	.. ..
<i>capensis</i>	f.	10	.. ..
<i>Vitis</i> , cl. 5, or. 1, Ampelidææ.			
<i>dentata</i>	climb. decid.	10	June
<i>cordifolia</i>	.. .. .	12	.. ..
<i>Wistaria</i> , (<i>Glycine</i>) cl. 17, or. 4, Leguminosæ.			
<i>frutescens</i>	twining decid.	10	June, September
<i>Consequana</i>	.. .. .	15	.. ..

<i>Colour of Flower.</i>	<i>Native Country.</i>	<i>Date of Introduction.</i>	<i>Soil and Propagation.</i>
Pink	Maderia	1777	.....
White	Peru	1799	..... rich earth
White	Carolina	1758	Layers, peat and loam
Yellow	Nepal	1824	Cuttings, sandy loam
Red	New S. Wales	1820	Cuttings, sandy peat
..	....	1800	.....
Yellow	N. America	1540	Cuttings, peat and loam
Green	Britain		Layers
....	Canaries		.....
Yellow	New S. Wales	1600	Cuttings, sandy peat
...	New Holland	1803	.....
White	Florida	1817	Seed, sandy loam
Purple	Carolina	1732	.....
Blue	E. Indies	1818	.....
Scarlet	W. Indies	1713	.....
Purple	S. America	1699	.....
Yellow	Madeira	1721	Cuttings, rich loam
...	E. Indies	1812	.....
White	...	1548	.....
..	...	1629	...
Brown	New S. Wales	1788	Cuttings, sandy peat
Scarlet	N. Holland	1803	.....
Blue	....	1803	.....
Rose	Ialapa	1820	Cuttings, Seed, rich loam
Dark Purple	Mexico	1833	..... peat and loam
Green	N. America	1691	Division of root, peat
White	....	1823	.....
Blue	Brazil	1699	Cuttings, sandy loam
Spotted	N. America	1812	.....
Pink	....	1629	.....
Brown	Syria	1597	Division of root, sandy loam
Purple	Rio de la Plata	1831	Cuttings, seed, peat and loam
Blue	N. Holland	1832	Cuttings, seed, loam and peat
Orange	New S. Wales	1795	Cuttings sandy peat
...	N. America	1640	Division of root, sandy peat
...	China	1800	Cuttings, rich loam
...	C. of G. Hope	1823	.....
Green		1820	Cuttings, rich loam
...	N. America	1806	.....
Purple	N. America	1724	Layers, sandy peat
Blue	China	1818	..... rich loam

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *CRATÆGUS FLAVA*, Var. *Lobata*. Rough barked Thorn, single fruited variety. (Bot. Reg. 1932.) Natural Order, *Roseaceæ*; Class, *Icosandria*; Order, *Pentagynia*. The original species produces its fruit in clusters, but in the present variety they are solitary. They are of a greenish-yellow, slightly tinged with pale red at the end. The plant forms a compact spreading head. The bark splits very much like that of an elm tree. *Cratægus*, from *Kratos*, strength, alluding to the density of the wood.

2. *CRATÆGUS OXYACANTHA*, Var. *Oliverriana*. Hairy-leaved Black Hawthorn. This variety of the common Hawthorn very much resembles the original species. Its berries are produced in large clusters, but are of a sloe-black colour, producing a pretty appearance. It is stated that the plant is a native of Asia Minor.

3. *GAILLARDIA BICOLOR*, Var. *Drummondii integerrima*. Two coloured Gaillardia. Drummond's entire leaved variety. (Bot. Mag. 3551.) *Compositæ*; *Syngenesia*; *Frustranea*. This variety appears identical with *Gaillardia picta*, excepting all the leaves being entire. The fine large blossoms, more than two inches across, the large crimson disk, surrounded by a ray of fine yellow, produces a very showy appearance, and renders the plant well deserving a place in every flower garden. *Gaillardia*, in compliment to M. Gaillard de Marenthonneau, an amateur botanist.

4. *HIPESTRUM BREVIFLORUM*. Short flowered Knight's Star Lily. (Bot. Mag. 3549.) *Amaryllidææ*; *Hexandria*; *Monogynia*. Mr. Tweedie found this very distinct species in the neighbourhood of Buenos Ayres. The scape rises about three feet high, bearing an umbel of six handsome flowers. Each flower is about four inches across, white striated with red, and down the middle of the petal, at its lower part, is a stripe of yellow. It is a very handsome species, and well merits a place in every collection of liliaceous stove plants. It has bloomed at the Glasgow Botanic Garden.

5. *LACHENALIA GLAUCINA*. Glauous flowered. (Bot. Mag. 3552.) *Asphodelææ*; *Hexandria*; *Monogynia*. This very handsome species has been sent by Baron Ludwig from Cape of Good Hope to the Glasgow Botanic Garden. The scape rises near a foot high, producing a spike of numerous flowers. They are at first of a pulish blue, changing, however, as they become older, to a rosy-lilac. The perianth (calyx) is also coloured, and prettily spotted with blue. There are two varieties of this plant, one having pale blue flowers, and plain leaves; the other having lilac or rose coloured flowers, and spotted leaves. *Lachenalia*, in compliment to W. de la Chenal, a botanical Author.

6. *LIMNANTHUS DOUGLASSII*. Mr. Douglas's Limnanthes (Bot. Mag. 3554.) *Limnanthææ*; *Decandria*; *Monogynia*. A native of California, from whence it was sent by Mr. Douglas. The plant is annual, quite hardy, decumbent, stems growing ten or twelve inches long. The ends are crowded with numerous fragrant flowers, each about an inch across, much resembling in size and form the *Nemophila grandiflora*. A large portion of the flower is a deep yellow, the extremities of the petals being white. It blooms from June to August. *Limnanthes*, from *lumen*, a lake; and *anthos*, a flower. The plant, probably, in its native habits growing by the sides of lakes, rivers, &c.

7. *LOBELIA CARDINALIS*; var. *MILLERI*. Mr. Miller's *Lobelia*. (Brit. Flow. Gard. 372.) *Lobeliaceæ*. *Pentandria*; *Monogynia*. A very handsome flowering variety, raised by Mr. Evans, gardener to Mrs. Batt, Newhall, Salisbury, Wiltshire. It is an hybrid between *L. cardinalis*, and *L. syphilitica*. The plant is perennial, quite hardy, blooming from July to the end of the summer season. The stem rises three feet high, having a long raceme of flowers, of a lively purple colour, darker up the centre of the petals. The plant deserves a place in every collection. Plants may be had at the public Nurseries. A number of very fine flowering hybrid *Lobelias* have recently been raised, and will be offered to the public this spring. (See Messrs. Godwin's Advertisement in February Cabinet.) They are highly ornamental, and great acquisitions to the

flower-garden. *Lobelia*, in compliment to M. Lobel, a celebrated botanical Author and Physician: he died in 1616.

8. *LOBELIA POLYPHYLLA*. Many-leaved. (Bot. Mag. 3550.) A native of Valparaiso, from whence it has been recently sent to this country, and bloomed in the Glasgow Botanic Garden. Mr. Knight of Chelsea also possesses plants of this species. The plant is perennial, suffruticose, growing a foot high, branching, each producing a terminal raceme of flowers, of a deep blood purple colour, producing a beautiful appearance. The plant ought to be in every flower-garden.

9. *MENONVILLEA FILIFOLIA*, Thread-leaved. (Brit. Flow. Gard. 371.) Crucifera. Tetradymania; Siliculosa. A hardy annual plant, a native of Chile, from whence it appears to have been sent to the Imperial Botanic Garden, at St. Petersburg, and from thence sent to A. B. Lambert, Esq. Boyton-House, Wiltshire, where it bloomed the last summer. The stems grow erect, about a foot high, each terminating in a longish raceme of flowers. The flowers are small, having very narrow petals, white. There are several other species of this genus, all natives of Chile. *Menonvillea*, in compliment to M. Thierry Menonville, an enterprising Naturalist of France.

10. *MUSCARIA COMMITATUM*. Dark Purple Flowered Grape Hyacinth.—(Brit. Flow. Gard. 369.) A native of Italy and Sicily, where it grows frequent in the meadows. The flowers are produced in dense racemes about twenty in each, of a dark purple colour. It is grown in the gardens of the Honourable W. T. H. Fox, Strangways, Abbotsbury Castle in Dorsetshire. The plant blooms in March and April. The flowers are scentless. *Muscaria*, from *moschos*, alluding to the order of the type.

11. *NEPENTHUS DISTILLATORIA*. Distilling Pitcher Plant. Pax. Mag. Bot.) This very singular plant is a native of the East Indies, and was introduced into this country in 1789. It was subsequently lost, but the late Dr. Carey gathered seeds of it near Bengal, on the Circar Mountains, who sent some to Mr. Cooper, of Wentworth. A very fine plant is now growing in the stove at Chatsworth, which has near fifty pitchers upon it. The plant has bloomed for eighteen months past. The flowers, which are numerous, are produced upon a raceme of eight or nine inches long.

12. *ONCIDIUM LINATUM*, Crescent-lipped. (Bot. Reg. 1929.) Orchidaceæ. Gynandria; Monandria. This very neat flowering species bloomed in the collection of Messrs. Loddiges', during the last summer. It is a native of Demerara. The spike rises about nine inches high. The flowers very much resemble those of *O. Harrisonianum*. Each is about three quarters of an inch across. The labellum is white striped, with dark blood colour. The other portion of the flower is yellow, spotted with brownish-red.

13. *PERESKIA ACULEATA*. West India Gooseberry. (Bot. Reg. 1928.) Cactaceæ; Icosandia; Monogynia; Synonym, Cactus Pereskia. This plant is an old inhabitant of our hot-houses, but seldom seen in bloom, often used as a stock, on which other kinds are inarched or grafted. The plant produces its flowers in a panicle of ten or more upon each. They are white, rather more than an inch across, and make a very pretty appearance. A fruit is produced much like a soft mellow Gooseberry. *Pereskia* from N. F. Peireskii's, an Amateur Botanist.

14. *SPIRANTHUS BRITTEANA*. Long Bracted Lady's Tresses. Orchidaceæ. Gynandria; Monandria. (Bot. Reg. 1931.) A stove herbaceous species of Orchideæ, belonging to the division Neottieæ. It was sent to Messrs. Loddiges' from St. Catharines. The scape rises about a foot high, terminating in a spike of flowers. They are very small, of a pale yellow colour. *Spiranthes*, alluding to the spiral manner that the flowers are produced in.

15. *TROPEOLUM BRACHYSEMA*. Short Spurred Indian Cross. (Brit. Flow. Gard., 370.) We have already given some particulars respecting this pretty little plant, under the specific name, *Brachysema*, which, by some mistake, we had so inserted it. It appears the proper specific title is as now given. We introduce it in this place to correct the mistake.

16. *TULBAGHIA VIOLACEA*. Violet-flowered. (Bot. Mag., 3555.) Liliacæ; Hexandria; Monogynia. A native of Southern Africa. The scape rises about a foot high, producing an umbel of eight or nine flowers, of a bright shining purple colour. Each flower is about three quarters of an inch across. *Tulbaghia*, in compliment to M. Tulbagh, a Dutch Governor.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

A LIST OF THE BEST HARDY EVERGREEN AND DECIDUOUS SHRUBS.—I shall be much obliged by a list of the best Hardy Evergreen and Deciduous Shrubs, to include the Camellias, Magnolias, and those shrubs which have been introduced for the last few years, fit for small gardens; and if the height, time of flowering, and prices would be given, it would be very acceptable to myself as well as others. The list of plants given in November, by Mr. Brown, was a very excellent one, and wanted the prices only to make it complete. A similar list for the greenhouse would be equally acceptable. PEDRO.

London, January 25th, 1836.

SUPERIOR PANSIES.—A reader of the *Cabinet* would be much obliged by a list, and description of colours, of forty of the best kinds of Pansies most suited for cultivating for prize flowers, to be exhibited at the Floricultural Meetings. An early attention to this request, by a connoisseur of Pansies, will be a very great favour conferred on AN OLD SUBSCRIBER.

Brompton, Jan. 20, 1836.

A LIST OF ONE HUNDRED FLOWERS &c.—A new Subscriber will be particularly obliged, if some Correspondent, will insert in as early a number as possible of the *Cabinet*, a list of flowers, &c., suitable for a garden 100 feet by 21, in rather an open situation, with a south aspect, and northern side of London. The list to contain only those flowers that a mere novice can attend to, with as good a succession of flowers as possible. A NEW SUBSCRIBER.

Jan. 23rd, 1837.

The garden is in some places shaded by fruit trees—please to say, therefore, what will grow under them.

DOUBLE FLOWERED CLARKIA.—Seeds of a double variety of this pretty plant are advertised in the *Cabinet*, for sale by Mr. Kernan. I have never heard of it before, but certainly it must be an acquisition to the flower garden, well deserving a place in all. Can any reader of the *Cabinet* inform me where it has been raised, and if it has bloomed in this country. J. KING.

Blackheath.

ROSA HARDII.—I have been informed that a new Hybrid Rose, raised in Germany, and named Rosa Hardii, produces golden coloured flowers, having a dark purple eye. I should be glad to be informed by any reader of the *Cabinet* who may have seen the flower, whether it be a double or single flowering variety, and where, in this country, plants may be purchased. ROSA.

Cheltenham Feb. 6th, 1837.

We refer our Correspondent to apply, immediately, to Messrs. Wood and Son, Maresfield, near Uckfield, Sussex, for the kind, if it be wished to have the plant for blooming the coming season. (See their list in the *Cabinet* for February.) CONDUCTOR.

THE DOUBLE BLOSSOMED CHINESE PRIMROSE.—Information has recently been given me, (but I have entirely forgot by whom) of a double blossomed Chinese Primrose. If some Correspondent of the *Cabinet* will inform me where it can be procured, and the price per plant, it will very much oblige.

Bath, Feb. 7th, 1837.

A LADY.

Mr. Henderson, nephew of Mr. Henderson Nurseryman, Pine Apple Place Edgeware Road, London, succeeded in raising a double flowering variety, having fringed petals. We understand plants are offered for sale at the above named nursery. CONDUCTOR.

ANSWERS.

ON HEATING BY HOT WATER IN GLASS TUBES, 1836, p. 215.—R. must be under some mistake respecting glass tubes, employed in hot water appearance as is statement that they give out heat quicker, and retain it longer is self-contradictory, to say nothing about the affording a higher temperature. The subject was most accurately investigated by Mr. T. Tredgold, some years ago. The result was, that water in a glass tube gives off its heat rather more slowly than in an iron one—in the ratio of 155, 180, where the iron is covered with rust, as hot water pipes generally are—consequently iron pipes give out heat quicker, and under equal areas of external surface, produce a higher temperature than glass would, and of course the heat contained in them is more rapidly expended. With respect to glass tubes, the difficulty and expense of joining them, would probably prove an insuperable objection to their use, if their brittleness were not a sufficient one.

ON THE HEAT OF A FURNACE, &c., 1836, p. 137.—I see a Correspondent at Canterbury, is incredulous as to the time which the little furnace mentioned in page 46, continues to burn. The fact, however, was as stated, and since that time, another furnace smaller than the former, as having rather less diameter and conical, has remained alight without any attention an equal time. Whenever it is filled with fuel and regulated, it burns untouched, twelve hours, and only requires stirring up to put it to work in the morning. It must, however, be observed, that the combustion for a great part of this time is so slow as to produce very little heat.

ON GROWING CAPE BULBS IN THE OPEN GROUND, page 1836, p. 137.—may be glad to be informed, that notwithstanding all that is said about growing Cape Bulbs in the open ground, those who attempt generally lose their plants, or if they succeed, the flowers are so indifferent as ill to reward the trouble. A few strong species succeed, but the wet of our autumns destroys most kinds, and the frosts cut up those which survive. If he will try, he must drain his beds well, raise them high, and protect them from all rain after October begins.

C. B. B.

REMARKS.

A LIST OF FIFTY EXCELLENT SORTS OF DAHLIAS.—I forward you the requested list of Fifty Dahlias, together with a few others which are spoken of in the highest manner, but not having seen them, I have omitted them in my list; those to come out this season, and which I have placed amongst the fifty, I have seen, and can highly recommend. Quilled Perfection must be considered a first-rate flower, and Sir H. Fletcher, Dodd's Mary, and Jones's Sulphuria Elegans, unequalled. I speak thus favourably of the latter, from the bloom exhibited at Salt Hill last year, which was splendid. Addison must also be in every collection, and will, I think, find itself a place in every good stand of blooms. I should remind growers that this is Granta's year, it having been generally remarked that this splendid flower is in perfection only every other

ON SPOTTED LEAVES OF ORCHIDÆ.—A Correspondent in one of your late numbers, complains of spots in the leaves of his Orchidæ, which do not appear to be caused by insects. As I have found that cold, especially during the night, when there is moisture on the leaves, affects many tender stove plants in the way he describes. I think it is possible his Orchidæ have suffered from that cause—a temperature much below 65 degrees, especially during summer, when the heat by day is great, will generally cause spots.

C.B.B.

TO DESTROY SLUGS, WOODLICE, EARWIGS, &c.—Take some cabbage leaves, and either put them in a warm oven, or hold them before a fire, until they are soft, then rub them with salted butter, or any kind of fresh dripping, and lay in the places infested.

JACOBUS.

season. In 1835 it was in every stand; last year, I do not remember seeing a good bloom. In my list I may, perhaps, have excepted several flowers which I have admitted; indeed, I see that the Editor of the Gardeners' Gazette condemns Ariel and Glory, declaring them hardly worthy of admittance amongst an 100, but as this gentleman seems rather eccentric in his likes and dislikes, I am not inclined to pay particular attention to him. PENSEE.

Dodd's Mary	Calypso
Springfield Rival	Metropolitan Roselle
Sir H. Fletcher, Richardson's	Piltown Rival
Quilled Perfection, Brown's	Ariadne, Brown's
Addison	Warminster Rival, Wheeler's
Countess of Sheffield	Venosa, do.
Sulphuria Elegans, Jones's	Dr. Halley
Perfection, Widnall's	Glory
Granta, do.	Ariel
Corinne, Brown's	Yellow Perfection, Stones's
Triumphant, Jeffries'	Blue Beard
Countess of Moreton	Lydia, Brown's
Mary Queen of Scot's, Flood's	Queen of Dahlias
Metropolitan Blush	Ada Byron
Mrs. Wilkinson	Countess of Liverpool
Napoleon, Smith's	Fisherton Rival
Purple Perfection, Squibb's	Pink Perfection
Diadem of Flora	Burgundy
King Otho	—
Beauty of Camberwell	Girling's Ruby
Angelina	Suffolk Hero
Sir R. Sagden	Madonna
Polyphemus, Elphinston's	Mrs. Broadwood
Lilac Perfection	Lady of Oulton
Hermione	Surpass Polyphemus
The Gem, Brown's	Nulli Secundus
Beauty of Dulwich	Beauty, Brown's
Perfection, Sutton's	St. Leonard's Rival
Royal Adelaide, Clark's	Countess of Jersey
Metropolitan Perfection	King of Beauties
Hon. Mrs. Harris, Squibb's	Conqueror of Europe
Aurora, Maule's	

ON THE AROMA OF FLOWERS.—Before R. T. W. can expect an answer to his query, December Number, 1836, page 292, concerning "aroma of flowers," he must explain its meaning. C. B. B.

ON THE GERMINATION OF OLD SEEDS.—The germination of seed, supposed to have lost their vegetative principle, may be greatly accelerated by immersing them in Oxalic Acid, or putting them in a cloth moistened with the acid. They are not to remain in the cloth any longer after the germination has commenced. By attending to the foregoing, seeds have vegetated after being kept thirty years. JACOB'S.
Jan. 25th.

EUPHORBIA JACQUINIFLORA.—In December last year, I had the pleasure of walking through the superior collections of Exotics in the nursery of Mr. Lowe, of Clapton, and one plant particularly arrested my attention, viz. *Euphorbia Jacquinii*. It produces a large head of scarlet bractes, that may be termed its flowers, which are splendid and showy. It deserves a place in every hothouse in the country. The season of its blooming, length of time I was informed it bloomed, several months, alike contribute to make the plant desirable.

Ealing, Jan. 3d, 1837.

J. A. SMITH.

ON THE PASSION FLOWER.—As you expressed a wish to receive my small communications, I forward them in time, I hope, for the February number. I am much obliged for your answer respecting the *Billiardiera Melocarpa*, and hope always to receive so speedy a reply.—"The name Passion Flower is derived from

the Latin, "*flos passionis*," originally given to the plant by the Spaniards, from its supposed resemblance to the instruments of the Crucifixion of our Saviour. When they first discovered America, and found a flower seeming to represent so closely circumstances of so sacred a nature, they attached the most superstitious ideas to it. I have read that, in old botanical works, very curious prints are to be met with, in which the flowers seem to be composed of the things themselves, being evidently portrayed from the exaggerated accounts of the first discoverers, who saw in the five anthers, our Saviour's five wounds; in the three styles, the nails by which he was fixed to the cross; in the column which rises from the base of the flower, the pillar to which he was bound. The resemblance appeared to the Roman Catholics so strong, that the name of Passion Flower was bestowed on it; and it is now held in such veneration in South America, that the Nuns train it with very reverential feelings round the windows of their little dormitories."—I copied this out of a very nice little book for beginners in Botany, by C. A. Halstead, which seems to me much the clearest and nicest work of the sort I have ever seen, and I should recommend it to any beginner in the science. If you think this worth inserting for the amusement of your readers,

You will much oblige,

Dec. 30th, 1836.

KALMIA.

A LIST OF FIFTY EXCELLENT KINDS OF DAHLIAS.—With this I send you a list of fifty superior Dahlias. I saw blooms of them at the various exhibitions around London and in the country, during the last season. The plants may not all be the best bloomers, as to quantity produced. I had not an opportunity of seeing some of them grow, but I can vouch for the superior form of the blooms, which I saw at the first-rate exhibitions, all of which obtained many prizes. I would furnish a list for the *Cabinet*, how many times I saw each sort in the winning stands, but fear it be too lengthy an article.

Marquis of Northampton, Elphinstone's	Bristol Perfection
Duke of Devonshire, Widnall's	Middlesex Rival, Pamplin's
Sir Edward Sugden	Quill'd Perfection, Brown's
Countess of Orkney	Pitdown Rival, Mitchell's
Ada, Gaines's	Rival Sussex
Mary, Dodds's	Countess of Jersey, Gaines's
Rosa Superba, Elphinstone's	Elis
Conqueror of Europe, do.	Scarlet Perfection
Paragon, Marsh's	Miss Georgiana
Goldfinder, Dray's	Queen's Superba, Wilmer's
Malibran, Kington's	Queen of Trumps, Elphinstone's
Mrs. Broadwood, Elphinstone's	Lady Dartmouth, Widnall's
Sulphurea Elegans, Jones's	Penelope, Chubb's
Ruby, Girling's	New Scarlet Perfection, Holman's
King Harold, Dray's	Mrs. Wilkinson, Penny's
Shakespear, Girling's	Napoleon, Smith's
Lord Lyndhurst, Forsyth's	Countess of Sheffield, Mantel's
Purple Perfection, Elphinstone's	Lilac Perfection
Warminster Rival, Squibb's	St. Leonard's Rival, Stanford's
Maid of Judah, Kington's	Alexander the Great, do.
Enterprize	Victorious, Kington's
Salter, Mitchell's	Paris, Widnall's
Sir H. Fletcher	Magnet, Kington's
Champion, Wolls's	Ipswich Beauty
Incomparable White	Madonna, Stanford's

In the above list will be found high-priced kinds, if all be offered for sale this season, which I am not aware of, not having looked through the published lists. To those persons who wish for superior kinds, at a lower cost, the catalogues published give a pretty correct statement of sorts. What I saw were exhibited at Bristol, Bath, Cheltenham, Vauxhall, Salt Hill, Cambridge, Twickenham, and a few other minor exhibitions.

Near London, Feb., 1837.

A CLERGYMAN, J. . S.

SEEDLING DAHLIAS,

RAISED BY J. KINGTON, STOWELL, NEAR CORSHAM, WILTS.

INCOMPARABLE WHITE.—Good show flower, and can be depended always to come good; it obtained the 1st prize for seedlings at the Bath Show, Sept. 15th, and the 1st for seedlings at the Rodborough Show, Sept. 23rd, 1836.

MALLIBRAN.—Fine white edged with rosy pink, obtained the 1st prize for seedlings of any colour at the Chippenham Show, Sept. 9th; and the 1st for edged seedlings at the Hungerford Show, Sept. 30th, 1836.

MAGNET.—Dark crimson, striped with light, fine cup petals, extra good shape; took the 1st prize for striped seedlings at the Hungerford Show, Sept. 30th.

ROSEBUD.—Beautiful shaped, rose cupped petals, obtained the 1st prize for selfs, at the Hungerford Show, Sept. 30th, 1836.

MOON-BAKER.—Fine purple, good show flower.

NIMROD.—Good rosy bronze, fine cup petals, show-flower.

KINGTON'S VICTORIOUS.—Beautiful light rose, extra good shape, cup petals; this variety obtained the 1st prize for selfs at the Salisbury Grand Show, Sept. 21st and 22nd for any colour at the Rodborough Show, Sept. 23rd, 1836.

MAID OF JUDAH.—Fine cream and buff excellent show-flower, every flower come perfect.

VICTOR HUGO.—Fine dark purple, good shape.

VATHEK.—Dark purple, Springfield shape.

December, 1836.

J. KINGTON.

The above kinds are offered for sale by C. W. HARRISON. (See List Advertized.)

MEETING OF BOTANICAL SOCIETY, FEB. 2nd.

J. E. GRAY, Esq., F.R.S., President, in the Chair.—A paper was read from Mr. Freeman, being hints on the importance and practicability of adopting a more systematic method, in describing and arranging species of plants. In his preliminary observations the writer complained that descriptions were generally without systematic arrangements, except where the species belonging to a genus are so very numerous as to be divided into groups; and that no proper account is taken of the relative value of characters, which are left to the judgment and experience of the describer. After describing the characters of the several species of *Thalictrum* and *Anemone*, which he selected as examples, he proposed their arrangements in a tabular form, as less liable to objections and more easy of reference. A continuation of a description by Mr. J. E. Dennes, of the plants in the neighbourhood of Deal, Walmer, Sandwich, and Dover, was also read. In one day Mr. Dennes recognized 84 genera, and 120 species; but has no doubt that on a fine day in July, this number would be materially increased. There were, on the table, some specimens of *Lycopodium circinatum*, of Humboldt, from South America, placed in water, in order to shew the development of the leaves.

ATHENÆUM.

BLUE AND WHITE FLOWERED PYRAMIDAL CAMPANULAS.—This plant when grown to a degree of vigour it is capable of, by a rich soil, and plenty of pot room, with one or more shiftings into larger as required, I find to grow nine feet high, with numerous subordinate spikes, and during some months at the end of summer to make one of the most showy plants in cultivation. The season to take in plants for potting being the present, and as they may be purchased at five shillings per dozen, induces me to send this small notice of the plant, that the readers of the *Cabinet* may be enabled to provide, and cultivate this truly sweet and splendid flowering plant. When grown in pots, it forms one of the most ornamental plants for a greenhouse-room, or to be placed in a vase on the lawn, or in a flower-garden. Or if grown in the open border in a deep and rich soil, it merits a place in all. I have found that by placing one of the blue flowered kinds in a shady place in the greenhouse or room, the flowers become paler and are of a most beautiful French lilac colour, most strikingly handsome.

London, Feb. 10th, 1837.

AN AMATEUR OF THE METROPOLIS.

ON NERIUM SPLENDENS, &c.—During the past summer, I flowered a few dwarf plants of *Nerium Splendens*, by the following method :—In April I looked over my old plants, and discovered those shoots which had a leading bud of blossom; I then took a small garden-pot, knocked the bottom out, and carefully drew the shoot through, at about six inches below its crown; I notched the stem like a Carnation, putting a bit of soil to keep the tongue open. I then tied a piece of sheet-lead under the pot, to enable me to fill it with fine rich soil. I pressed the soil tight, and placed the plant in a hothouse for a month; the layers rooted speedily. I then cut it off the parent, repotted into a larger pot, kept in the hot a fortnight longer, which was then the first week in June, and a most beautiful bloom succeeded upon all the plants, and they not more than a foot high. A free supply of water was given, whilst striking root, as well as subsequently. I beg to assure the readers of the *Cabinet*, that the plan is worth trying. I should be glad for this to be inserted in the March Number. (Too late for the first sheet of the work.—CONDUCTOR.)

Honiton, Feb. 13th, 1836.

J. P. CLARK.

N.B. The same treatment with *Nerium Oleander* would doubtless be equally successful.

ALLSPICE OR PIMENTA,—is the dried berry of a West Indian species of myrtle (*Myrtus pimenta*), which grows to the height of twenty feet and upwards, and has somewhat oval leaves about four inches long, of a deep shining green colour, and numerous branches of white flowers, each with four small petals. In the whole vegetable kingdom there is scarcely any tree more beautiful or more fragrant than a young *Pimenta* tree about the month of July, branched on all sides, richly clad with deep green leaves, which are relieved with an exuberance of white and richly aromatic flowers; it attracts the notice of all who approach it. *Pimenta* trees grow spontaneously, and in great abundance, in many parts of Jamaica; but they cannot be propagated, without great difficulty. The usual mode of making a *Pimenta* walk, or plantation, is to appropriate for this purpose a piece of woody ground in the neighbourhood of an already existing walk, or in a part of the country where the scattered trees are found in a native state. The other trees are cut down, and, in a year or two, young *Pimenta* plants are found to spring up in all parts, supposed to have been produced from berries dropped there by birds, which eagerly devours them. About the month of September, and not long after the blossoms have fallen, the berries are in a fit state to be gathered. At this time, though not quite ripe, they are full grown, and about the size of pepper-corns. They are gathered by the hand; and one labourer on a tree will strip them off so quickly, as to employ three below to gather them up; and an industrious picker will fill a bag of seventy pounds weight in a day. The berries are then spread on a terrace, in the sun, to be dried; but this is an operation which requires great care, from the necessity of keeping them entirely free from moisture. By the drying they lose their green colour, and become of a reddish brown; the process is known to be completed by their change of colour, and by the rotting of the seeds within the berries. They are then packed into bags or hogsheds for the market. When the berries are quite ripe, they are of a dark purple colour, and filled with a sweet pulp. *Pimenta* is thought to resemble nutmegs and cloves, whence it has obtained the name of all-spice. It is also employed in medicine, as an agreeable aromatic, and forms the basis of distilled water, a spirit, and essential oil. The leaves of the *Pimenta* trees yield, in distillation, an odoriferous oil, which is not unfrequently used in medicine preparations instead of the oil of cloves.

LONDON HORTICULTURAL SOCIETY MEETINGS, FEB. 7TH.—Dr. Henderson V. P. in the chair. Several books were announced. Lord O'Neill, Sir P. G. Egerton, Mr. Richard Forest, G. Coode, Esq., and Christopher Rawson, Esq., were elected Fellows of the Society. Dr. Lindley read a letter from Mr. Buchan, gardener to Lord Bagot, Blithfield, Staffordshire, forwarding therewith, forty seeds of the true Cinnamon Tree, from a tree which was imported into this country. The fruit much resembles acorns hanging in clusters of two or three, and it is considered that the plant would well bear exposure to the air in winter, in most seasons, and without much protection. Specimens had been

sent to many Botanical and Horticultural Societies, in districts where it is considered that the plant would thrive better than in Staffordshire. The flowers exhibited were, of *Echeveria gibbiflora* (Crassulaceæ) Gibbons flowered, continuing in high flower and perfection. It is a greenhouse plant flowering freely at a season when very desirable. It is of easy culture, and very suitable for either the greenhouse or sitting room. Its yellow and pinkish flowers being very showy. *Helleborus odorus*, a plant having a pleasant aromatic odour, but difficult to increase. *Eulophia lurida* (Orchideæ.) These were from the garden of the society. *Epacris pungens*; *E. impressa*; *E. campanulata alba* from Mr. Glenny; *Boronia pinnata*; *Veltheimia viridiflora*; *Poinsettia pulcherrima*; and six kinds of Camellias from Mrs. Marryatt; *Oncidium carthaginense*, the flowers of which were in high perfection, of an olive colour, although the plant had been kept in a drawing room in London for the last month. *Brassia maculata*, bearing yellow and red flowers. *Bilbergia iridifolia*, bearing crimson flowers; and *Thalia grandiflora* (cannæa.)

ATHENÆUM.

REFERENCE TO PLATE.

Bignonia Venusta.—This very splendid flowering hothouse climber well deserves a place in every stove; scarcely any flower can equal its beauty and comeliness when in bloom. It is of easy cultivation. If planted in the corner of a bark pit, and its roots allowed to extend in the bark, it grows vigorously, extending thirty feet or more in a season. If the plant was allowed plenty of root room by being planted into an open border in the stove, it would doubtless succeed equally as well, provided some due proportion of warmth was communicated to the soil by being near a flue, &c.; or grown in a large tub would probably answer well. Our plant is grown in the bark pit. A plant growing, in the stove of the Misses Trevor, Tingworth, near Woburn, in three years covered a surface of 500 feet, and blooms most profusely. Manure water is given at Tingworth to promote its vigour. The truss we have given has only about one half the usual quantity of flowers in it—our space not admitting more. It blooms from November till February, during which time it has a most enchanting appearance. Plants may easily be obtained at a low cost. Cuttings readily strike root, inserting young shoots of about six inches long, into a sandy loamy soil, and placing them in a moist temperature.

Catceularies.—These very splendid shrubby kinds, have recently been raised, by the persons whose name is attached to each. In order to give our subscribers as much as possible, in each plate, consistent with a proper representation of the flower, we have only given a single blossom of each, aware that our readers would readily judge what additional show would be given by any increased quantity produced upon a plant, and thus give eight kinds instead of one or two, if large specimens were figured.

No. 1, 2, and 5, are seedlings raised by Mr. Barratt, St. John's Botanic Gardens, Wakefield. We saw them in splendid bloom last season, in his fine collection.

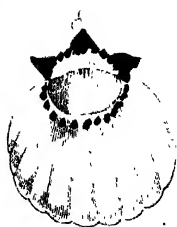
No. 3. This most striking dark flowered variety with its white cap, we received a specimen from Mr. Atkins, Nurseryman, Northampton—along with a number more of very superior kinds which had been raised in the establishment of Mr. Atkins; we had only space at present for this very handsome kind. Others we purpose giving during the season.

No. 4, 7, and 8. These most strikingly handsome kinds were raised by Mr. Plant, Florist, Cheadle, Staffordshire. We visited the place during blooming season, and took drawings of forty, or more, of the most superb kinds, which Mr. Plant had been so very successful in raising. To have obtained the beautiful spotting upon shrubby kinds, was a new feature in the genus, for which Mr. Plant deserves the thanks of every admirer of this handsome family flowers.

No. 6 is *C. Majoriana. superba*. A most superior kind, raised by Mr. Major, landscape gardener, Knostrop, near Leeds. The present variety is of a brighter and lighter scarlet than *C. Majoriana*. We saw plants of it in exquisite bloom.

We have a plate in preparation of a number of other splendid kinds raised by each of the above gentleman. We hope each of the parties will meet with that encouragement they so deservedly merit, for their trouble, by an extensive sale of plants.

A



THE FLORICULTURAL CABINET,

APRIL 1ST, 1837.

PART I, ORIGINAL COMMUNICATIONS.

ARTICLE I.

OBSERVATIONS ON AN APPARATUS FOR HEATING A PIT.

BY C. C. B.

HAVING sent you some months ago an account of a little apparatus which I had employed for heating a pit, I now send you the result of my experiments, which I can venture to recommend for general adoption. To those who may not in the mean time have contrived any thing better for themselves I am the more anxious to do so, because I find that my previous suggestion has been acted upon in several quarters, and I fear that some disappointment may have arisen to those who adopted it as an effective instrument which was little more than an essay towards one. For those who may have been so disappointed, I just mention that by using from eighteen to twenty-four feet of three-inch pipe, instead of nine feet, and substituting a small cistern holding two or three gallons instead of the funnel, the apparatus may be effective; and by this last expedient of a cistern, my original apparatus was worked efficiently for more than seven months. The boiler, however, which I am about to describe, possesses so many advantages, over the former, that I should not recommend any one putting up a new apparatus to follow the former model.

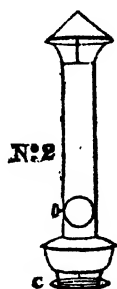
The annexed sketches will explain both the form of the boiler, and the mode of applying it.

No. 1. represents the boiler, a double cone of copper or tin, nearly resembling a loaf of sugar with the top cut off. The boiler containing a shell of water about one inch, or one inch and a half thick

the fire, the fuel for which is introduced as before: At the top *a* and *b* are two pipes with union joints, giving opening to the boiler at top and bottom.

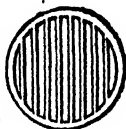


No. 2. is the chimney detached from the furnace, its only peculiarities, being a circle of iron, *c*, nearly as large as the top of the furnace, suspended over the fire, causing the flame to play against the boiler, the draft taking place all round it, and a rim of iron in form like an inverted cone attached at its upper edge to the lid, but leaving a space of about one inch and a half between itself and the circular damper, through which space the draught plays, as shewn by the arrows in No. 1. These two are essential to the working of the furnace with enough of fuel.



No. 3. is a ring of iron as broad as the boiler on which it rests, and which is attached to a square iron frame, by which it is fixed in the brick-work which supports it. The grate *G*. may either rest on the

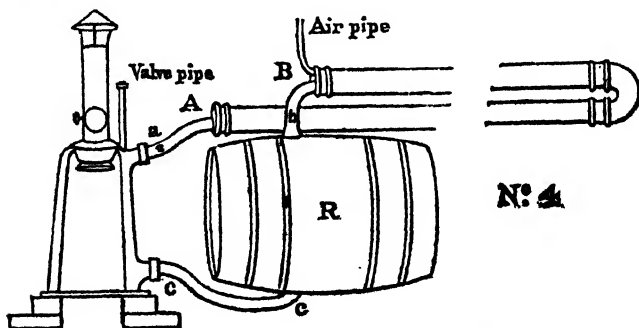
three brackets, xxx, and be thrown down by a little rod with a hook, or be fixed on two pivots, and secured by a catch, so as to turn over and allow the clinkers to fall out when required.



N° 3



No. 4. Exhibits the apparatus complete; the lead pipe *a* from the top of the boiler enters the lower side of the cast iron pipe *A*, while from *B*, the other extremity of the range of iron pipes, the lead pipe *b*, enters the top of this reservoir *R*. a strong cask answers the purpose perhaps as well as any thing. From the lower side of this reservoir, a lead pipe *c*, communicates with the union joint at the bottom of the boiler. A supply cistern placed so that its bottom is higher than the highest part of the iron pipe, and communicating with the bottom of the reservoir, and a valve not lower than the top of the supply cistern, with an air pipe on the highest point of the iron pipes, complete the apparatus.



N° 4

The fire being lighted in the furnace, the heated water flows into the iron pipe and thence into the reservoir, till all be heated. When

6. OBSERVATIONS ON HEATING A PIT.

he fire goes out, a counter current takes place, till the water in the reservoir is all cold again.

The following particulars may prove useful to those who wish to employ such apparatus.

PROPORTIONS IN INCHES FOR BOILERS OF DIFFERENT SIZES.

FURNACE. Upper. Diameter of	Lower diameter.	Height perpendicular.	Boiler thickness.	Diameter of union joints or communication pipes.	Will produce about	Size of chimney. Diameter.
(1) 6. inch.	9.	18	1 $\frac{1}{4}$ inch	1 $\frac{1}{4}$		3 inches.
(2) 6.	10.	20	1 $\frac{1}{4}$	1 $\frac{1}{2}$		3 $\frac{1}{2}$
(3) 6.	12.	22	1 $\frac{1}{2}$	1 $\frac{3}{4}$		43 $\frac{1}{4}$
(4) 6.	14.	24	1 $\frac{1}{2}$	2		4

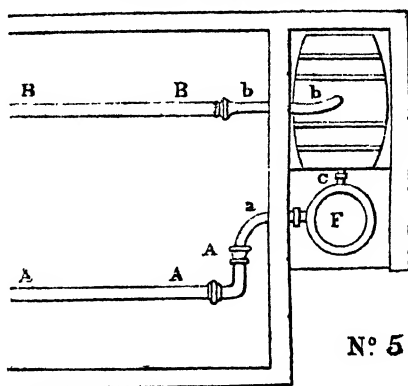
The first of these, will be sufficient for a pit containing from an hundred to an hundred and fifty square feet of glass, the last probably sufficient for a greenhouse of from six hundred to eight hundred or more. The reservoir should contain *not less* than three times as much as the pipes.

The expence of the smallest boiler is about six pounds; in tin, conical not curvilinear, about one pound fifteen shillings. The larger boiler in copper, may be each about one pound to one pound five shillings dearer than the other.

The expence of setting, from the small size of the boiler is very trifling. The best plan is a slight case, either of wood, slate, or brick work, packed with saw dust, and covered from the wet. The reservoir also should be similarly packed in saw dust, that no heat may be wasted.

Fig. 5. The annexed sketch exhibits the mode of arranging the apparatus as applied to a pit. F. is the furnace surrounded by the boiler a, the lead delivery pipe from the top of the boiler to the cast iron pipe A; B B the other cast iron pipe; b b the return lead pipe communicating with the top of the reservoir; c the return from the bottom of the reservoir to the boiler. The boiler and reservoir are outside the pit, enclosed in a small chamber of four and a half inch brickwork. The lowest point of A' A viz. A' must be higher than the

top of the boiler, and the pipe must incline upwards the whole way from A' to B' about one-third of an inch in nine feet, so that B' is the highest point of the iron pipe, here the air pipe is placed. From B' to the top of the reservoir must be an uniform fall; one-sixteenth or one-twentieth of an inch in every foot is sufficient.



N° 5

The principal advantages of the apparatus are, that it is applicable on a much smaller scale than any other boiler now in use. That it occupies less room, is less expensive; for though its cost in copper, equals or exceeds a common cast iron boiler, yet when the furnace doors and bars, and the expensive setting, and chimney necessary for the latter are taken into account, the economy of this will be apparent. It consumes much less fuel, and requires much less attendance, as it may safely be left for three or four hours; if once filled with fuel.

In conclusion, it is perhaps well to observe that any material deviations from the proportions given above, will probably be found disadvantageous. All cylindrical boilers, with vertical furnaces, which I have hitherto seen, have been so much too large in proportion to their height, that half the heat of the fire went up the chimney; it will be seen this defect is cautiously, and I believe effectually guarded against. A further caution also against a common error may not be misplaced, the lowest point of the iron pipe, must be above the boiler and they must incline *upwards from the point* at which they *receive* the hot water *to the point* at which they deliver it to the *reservoir*. The only case in which I should be tempted to deviate from this, would be, where the pipes exceeded one hundred feet in length, when the air-pipe may be placed at the end of it furthest from the boiler; and both iron pipes incline equally from that point towards the boiler and reservoir. The

inches apart. In the middle of September I generally begin to make up my bed for blooming, having it four feet wide with border boards above the level, I take out one spit of earth from end to end, replacing it with a layer of horse or cow-dung quite rotten four or five inches thick all over the bed, I then cover it with about six inches of earth, keeping it three inches higher in the centre, gradually sloping to the edge, after which I mark out the bed and plant the pinks seven inches apart: about the latter end of March I top dress them with some old rotten horse-dung worked into the mould with a small fork between each plant: in the beginning of May they will spindle up for bloom, I then take off all the side shoots that show for bloom, not having more than two of the main stems to bloom, and in many cases not more than one, and also all the side shoots that show for bloom, leaving only the main pod to bloom: about the latter end of the month many of the pods will begin to open, care must then be taken to keep the pods from bursting, to prevent which, they should be tied with a piece of soft bass matting round the middle of the pod in a tight knot, and should they be inclined to run down on one side, they should be eased on the opposite side down to the bass, which will give freedom to the petals to expand equally, and when they begin to drop their guard leaves, cards should be placed on them, laying the guard leaves even and round to allow the others to fall in regular succession, then the shade should be placed over them from the sun.

I now beg to make some remarks from what has fallen from the pen of the Practical Gardener, relative to the raising of pinks from seed which he states is the first principle of all vegetables, so far I admit he is correct, I wish I could say so in other respects. He observes you should *always* have a good stock of pink seed—but I should like to know how it is to be obtained; there has been many seasons that I have not been able to get as much seed from one thousand five hundred plants, as would raise one dozen, it is true some seasons are more favourable than others, and a greater quantity of seed may be obtained, and there are many sorts that I have not been able to save a single pod in the period of twenty years.

The Practical Gardener also recommends *the laying of pinks*, I would ask what person of any experience, or practice in piping, would attempt so tedious a method as laying, as piping of any description is better than layers, and it is my decided opinion that if carnations and piccotees would strike as free as pinks, very few florists would lay either.

The time I would recommend for the sowing of pink seed, is the latter end of March, or the beginning of April, which I perform in the

following manner ; I take a flower-pot No. 12, and fill it with finely sifted mould, drawing a flat piece of board over the top to make the surface even, I then lay on the seed and cover it over with very fine mould, and give them a gentle watering, covering the pot with a glass, and about the beginning of June they will be fit for planting in the natural ground and will bloom the following year.

It is a great error among the cultivators of this flower, in not getting the sorts they require in due time ; I have frequently received orders as late as the middle of November after all the best plants are disposed of, the plants so late obtained cannot be expected to be so fine as those planted out in September, which gets better hold of the ground and are better able to stand the winter.

Since writing the above I have seen the second part of the Practical Gardener's remarks, and I beg to state, I have the same opinion of the second part as I had of the first, at the same time I beg to thank him for his information concerning *rats*, he states there is no animal so dangerous to pinks as *rats*, therefore you should be very watchful that they do them no mischief, I can assure him, I have a great many *rats* in my garden and its neighbourhood, and they must be all very kind ones, as I have never known them to destroy any of my pinks, but there is a little animal, or insect called a *grub*, which has done more mischief in *one night* than all the *rats* have done in *twenty* years, and when I find any of my pinks bit off, I work round the stem of the plant with my finger in the earth, and I generally find them about one inch under the surface, and not being quite so nimble as the *rats*, I can more easily catch them, and I show them no more quarter than I would the vermin before alluded to. In giving my opinion of the pink, I beg to observe I consider it a most beautiful flower, and worthy a place in the garden of every florist, I have frequently been highly gratified during the twenty years that I have been a grower of that delightful flower, to observe after a long winter, my pinks looking beautiful when there was scarce any thing else green in the garden.

The pink is the poor man's flower, and has been exhibited for show more than any other flower until the introduction of the dahlia, which the poor man has little chance with, it requiring considerable room to grow any quantity : I consider the pink also very little inferior to the carnation or piccotee : take and place the following twelve blooms in a stand viz. Dryden's Earl of Uxbridge—Hopkins's one in the Ring—Ownsworth's Omega, Bexly beauty—Westlake's Hero—Bray's Invincible—Mans, Dr. Summers—Stevens's George Cook—Clark's Matilda—Barret's Conqueror—Seal's Miss, Austin, and Ibbet's Triumphant ; and

I think it would be a difficult matter to beat them, with the assistance of the Practical Gardener to boot.

Mr. Editor I have placed the above remarks in your hands for insertion in your Cabinet, if you think them worthy a place in that publication, and rest assured should opportunity occur, I should feel proud in forwarding any communication that would assist the amateur or others in the culture of flowers generally.

ARTICLE III.

ON THE CULTURE OF THE CHRYSANTHEMUM INDICUM.

BY S. R. P. GREENWICH.

I AM so much a debtor to your Floricultural Cabinet for the pleasure and instruction I have derived from its pages that I am anxious to offer any contribution under the hope that I may assist in affording to others a reciprocal pleasure.

There are few late flowering plants, that surpass in beauty the *Chrysanthemum Indicum*, its varied, and increasing colours, are daily adding fresh splendour to the floral world, and whether it be in the conservatory, the sitting room, or the flower garden, I know not a more desirable autumnal plant. Much has appeared already on the cultivation of this pretty flower; but as I last year produced a method of treating it as a dwarf pot plant, that, notwithstanding the disadvantages of the late ungenial season, more than answered my anticipations, I am induced to submit my mode of culture.

Early in the spring I took from the old plants rooted young shoots planted then singly, in number sixty pots, and promoted their growth and strength as rapidly as possible, by placing them in a cold frame, and supplying them occasionally with liquid manure. When the pots were full of roots they were shifted into 48's, and placed in an open situation, and watered as before; by the latter end of June the tall growing sorts, had nearly reached three feet high, and the more dwarf in proportion; they were then turned out of the pots, and suffered to get a little flaccid, the mould was partly shook from them, and their roots slightly reduced. They were next potted in 32's as follows, some pieces of broken pots, as usual, and about two inches of compost being put into the pot, the plants, with the aid of a second person to fill up the mould, was coiled round the inside of the pot; the top of

the stem, which was left about five inches above the surface of the earth, was, by a more sudden turn, brought to the centre of the pot and there fastened upright to a stick. Should the stem crack in this operation, it will not effect the plant, if it be not severed.

The plants were placed in a shady situation; when the tops had shot a little, they were pinched off to about four inches: as soon as the laterals had started, the pots were exposed to the full sun; at the latter end of August, they were shifted into 24", the pots placed a foot apart and constantly kept moist with water or liquid manure. Thus treated they averaged from fourteen to twenty inches, and clothed with a fine healthy foliage down to the pots. They were placed in the greenhouse and sitting rooms, and produced the finest bloom I ever saw.

This may appear a lengthy process; but when it is considered, that we take more trouble to produce a fine balsam or cockscomb; surely, it will not be thought too much pains to bestow upon this delightful flower that cheers the last ray of departing autumn "When all fair things are passing away."

ARTICLE IV.

ON THE CULTURE OF IPOMOPSIS ELEGANS.

BY J. M., ESQ. HANTS,

IF Medicus does not obtain better advice relative to preserving the *Ipomopsis elegans* than what follows, even this may prove acceptable. I pot the plants in light soil, with about an inch of small drainage at the bottom, over which I place a tuft of moss; when obliged to shift them, I am very careful not to disturb or injure any of the young roots, and sometimes (when plants were scarce) I have broken the pot, as the safer way. In planting I always elevate the plant (as it were on a little hill) in the middle of the pot, as heaths are served; and I take care in giving water, which requires to be done moderately, but often, not on any account to let it touch the stem of the plant. Let Medicus do this, and keep them in a light and airy situation in the greenhouse, or turn them out if he wishes them to grow more luxuriantly, into the border in the spring, (the border being composed of light and open mould) and though I do not say he will not lose one or more plants without being able to account for their dying, yet I think I may confidently assert that the majority of his patients will do credit to his cause provided he attends them after the manner I have prescribed.

ARTICLE V.—A LIST AND DESCRIPTION OF PLANTS WHOSE
FLOWERS INDICATE THE HOUR OF THE DAY.

BY MR. JAMES BROWNE, DERSINGHAM, NORFOLK.

I TAKE the liberty of sending the following extract for the use of your readers if you think it worthy a place in the Cabinet.

“ Among curious collections, it may be desirable to assemble the dial plants, or such as indicate the hour of the day by closing or opening; a list has already, been given by Linnæus in the *Philosophia Botanica*: but the following are plants generally known and easily procured, and are sufficient to form a botanist's dial in Britain.

NAME OF PLANTS	Opens in the morning.		Shuts from Noon to night	
	Hour.	Min.	Hour	Min.
<i>Tragopogon pratensis</i>	3	5	9	10
<i>Leontodon serotinus</i>	4	0	12	1
<i>Helmenthia echioides</i>	4	5	12	0
<i>Borkhausia alpina</i>	4	5	12	0
<i>Cichorium lntybus</i>	4	5	8	9
<i>Papaver nudicaule</i>	5	0	7	0
<i>Hemerocallis fulva</i>	5	0	7	8
<i>Sonchus lœvis</i>	5	0	11	12
<i>Agathyrus alpinus</i>	5	0	12	0
<i>Convolvulus arvensis</i>	5	6	4	5
<i>Lapsana communis</i>	5	6	10	0
<i>Leontodon taraxacum</i>	5	6	8	9
<i>Achyrophorus maculatus</i> ...	6	7	4	5
<i>Nymphæa alba</i>	7	0	5	0
<i>Lactuca sativa</i>	7	0	10	0
<i>Tagetes erecta</i>	7	0	3	4
<i>Anagalis arvensis</i>	7	8	2	3
<i>Hieracium pilosella</i>	8	0	2	0
<i>Dianthus prolifer</i>	8	0	1	0
<i>Calendula arvensis</i>	9	0	3	0
<i>Arenarea purpurea</i>	9	10	2	3
<i>Portulaca oleracea</i>	9	10	12	12
<i>Malva Carolinians</i>	9	10	19	1
<i>Stellaria media</i>	9	10		10

The above might be planted in a department by themselves, and would form an object of great interest to all lovers of Nature,

While I have pen in hand, I must express my disapprobation of botanists continually changing the names of plants, names that have been transmitted to us by our forefathers. Our old favorites have now

new names, and many of them nothing near so appropriate as the old. It appears to me that the meddling parties, either do it, to render new articles necessary, or to (ridiculously) immortalize themselves by a display of their supposed ability above their predecessors. I will just quote a few of them as examples, *Coreopsis tinctoria*, to *Calliopsis bicolor*. *Dahlia superflua*, to *Georgina variabilis*. *Colutea frutescens*, to *Sutherlandia frutescens*. *Celsia acutifolia*, *incisifolia*, &c. to *Alonsoa*, with many others.

I find too there has been an attempt made to divide our old favorite *Tropæolum* to two or more genera, I trust that such alterations of the names of plants (excepting with good reason) will never meet with support from the true lovers of Flora. I have two or three other articles in course of preparation which shall be forwarded as soon as my avocations will allow me time to finish them.

ARTICLE VI.—ON THE CULTURE OF ORCHIDEOUS EPIPHYTES.

BY A THREE YEAR'S PRACTITIONER.

In the summer of 1833, a number of plants in bloom of this singular and interesting tribe, came under my notice in the collection of Messrs. Loddiges of Hackney Nursery, which at once determined me on commencing their culture, having a great deal of glass. I purchased one hundred pounds worth of plants to begin with, and had them placed upon a back flue in a vinery, at eight feet from the glass. The period of the vines being in leaf, the plants had the advantage of a partial shade; in this situation they did well in the summer of 1834, but when the winter approached I found them declining in vigour and looking unhealthy, with all the attention I could give them, following the direction of Messrs Loddiges, and Mr. Cooper of Wentworth. I immediately had a house erected to grow them in, I have it heated on the hot water system, three feet above the pipes going round the house, I have a ribbed trellis three feet broad, upon which I have a quantity of plants, they flourish amazingly. At the centre of the house, I had a pit constructed with a wall three feet high, the breadth of the pit is eight feet, and length thirty six, two hot water pipes are laid up the centre, and a floor one foot above, where the top pipe is laid it is of tiles. On this floor I laid one foot of moss, and upon the moss I placed my plants, growing in pots, wicker baskets, &c., they flourish amazingly too. Since I commenced growing this tribe of plants, I have had considerable opportunities of trying experiments on their culture, as well as ascer-

quisite to have them grown in a situation possessing such advantage. On November first, I took up the plants, and re-potted them, keeping their heads entire, and placed them in the greenhouse and cool frame for winter protection. During the winter I give the plants a scanty supply of water, never allowing them to be saturated at the roots, but when quite dry to give them as much as will moisten all the soil in the pot.

I have a rock-work twenty eight yards long, with a ten feet depth of frontage, having a full south aspect, well protected on the north by a thick holly hedge, upon this rockery, I planted sixty good strong plants. The taller kinds I placed in hollows, out of which the heads rose some distance : the dwarf and trailing kinds to spread and hang over the surface of the stones. I used a compost for them to grow in same as for the border. In this situation they flowered most profusely, producing a very pretty effect : they required a good supply of water, almost every day, but they amply repaid for all attention. I judged that in consequence of the plants on the rockery being dry at the roots, and screened on the north, that I might safely allow them to stand out through the winter which they would survive, but on examining them yesterday, (February 23rd,) I find nearly all the tops are killed. It is probable the roots of some may be alive, but if they push shoots, they will be so late in the season, and perhaps not more than two or three shoots to a plant, that little show would be produced, (if any) by them. For the future I propose taking up my plants from the rockery, and giving winter protection in a dry, cool, frame.

To have a good show, established plants of two or more years growth is necessary. Small plants make but little show, unless planted closely together ; they are easily raised from slips or cuttings, put off from ripened shoots of the young wood. The cuttings must be inserted in a dryish soil, and be kept so till the cuttings begin to wither, when if water be moderately supplied, they will immediately strike root. A gentle heat in a cutting house or frame, assists to strike more certainly. Thus in two years a good stock of plants may be obtained to turn out which will produce effect.

PART II.

LIST OF NEW AND RARE PLANTS.

Noticed since our last.

1. *BEGONIA OCTOPETALA*, eight petaled, (Bot. Mag. 3559.) Natural order, *Begoniaceæ*. Linnæan class *Monœcia*. Order, *Polyandrias*. This is by far the finest flowering species that has yet been introduced into this country, the flowers are as large as those of a single *Anemone*; it was sent from Lima in 1835, by J. McLean, Esq. to the Botanic Garden, at Glasgow, where, in the hot-house, it bloomed in October and November, of 1836. It requires a very high temperature to bloom well. The root is tuberous, the plant does not produce a stem. The leaves are upon long foot-stalks a foot and a half long, the leaf is eight or ten inches long, cordate. The flowers are produced in corymbs, of a greenish-white colour: the male blossoms are larger than the female: each of the former are two inches, or more across. *Begonia*, in compliment to M. Begon, a French promoter of Botany.

2. *BOLBOPHYLLUM BARBIGERUM*. Bearded flowered. (Bot. Reg. 1942.) *Orchideæ*. *Gynandria Monandria*. A most singularly pretty flowering *Orchideous Epiphyte* Plant, which has bloomed in the collection of Messrs. Loddiges, at Hackney, in whose collection it bloomed during the last year; it was introduced from Sierra Leone. The flowers are produced upon a raceme of six inches in length, upon each are from sixteen to twenty flowers; the petals are very minute, scarcely perceptible; the lip is long, narrow, flexuose, closely covered with a yellow felt, within its point there is a deep purple beard of very fine hairs, and on the under side is another such beard of fine hairs; at the end of the lip there is a purple brush of threads, which by a current of air, waving about, to produce a graceful and pretty effect; the lip, with its yellow felt, purple brushes, and two beards, is jointed so delicately that a very slight breath produces a rocking movement, which makes it appear as if some animal nature was possessed by the plant: the flower is a most extraordinary production. Messrs. Loddiges have another species of similarly curious habits. The plant has something of the appearance of a small kind of *Oncidium*. *Bolbophyllum*, from *bolbos*, a bulb, and *phyllum*, a leaf; alluding to the leaves arising from a bulb-like stem.

3. *CRATÆGUS FLAVA*, Rough-barked Thorn, *Roseacæ*. *Icosandria Pentagynia*. (Bot. Reg. 1939.) The single fruited variety was noticed last month, the present species bears its fruit in clusters of three or four berries upon each, they are of a greenish-yellow.

4. *CHYSIS AUREA*, Golden-flowered. *Orchideæ*. *Gynandria Monandria*. (Bot. Reg. 1937.) Another splendid flowering species of *Orchideous Epiphyte*, which has been introduced into this country by Mr. Lowe, of Clapton, in 1835; it was collected by Mr. Henchman, in the valley of Cumancoa, in Venezuela. Mr. H. describes it as growing suspended by long fibrous roots, from the lateral branches of trees, so that its pseudo-bulbs hanging pendulous wave in the wind, and produces a spike of ten flowers. Mr. Bateman of Knypersley, has a plant of it which has grown very rapidly suspended from a rafter in a pot, planted in turfy-peat and broken potsherds. The stems are in structure very like those of a *Cyrtopodium* or *Catasetum*, but its real affinity is to the genus *Epidendrum* and its section. The flowers are very showy, each about an inch and a half across, the sepals are white at the lower part of a golden-yellow. Labellum, white with deep red veined stripes.—Petals same colour as the

sepals. *Chysis* from *chusia* a melting. The pollen masses being as it were fused together.

5. *DELPHINIUM MONTANUM*. Mounta in Larkspur. Ranunculaceæ. Polyandria Trigynia. (Bot. Reg. 1836.) Synonym. *D. elatum*. *D. hirsutum*. One of the handsomest flowering species, a native of the Alps of Europe. It is a hardy perennial, flowering from August to October; growing from five to seven feet high. The plant is covered with soft green down, and the flowers are of a pale sky-blue, slightly tinged with purple. This is an old inhabitant of our gardens, but, we have given these particulars in order, that our readers who may possess the kind and not know its real name, may be able to do so.—

6. *DAVIESIA ULCINA*, Furze-like. Leguminosæ. Decandria Monogynia (Pax. Mag. of Bot.) A very neat and handsome flowering greenhouse plant, a native of New Holland, it well deserves a place in every collection. The plant forms a very neat bush; the flowers are produced in vast profusion, and are very neat and pretty, much resembling, but a little larger, than those of the *Eutaxia myrtifolia*. They are produced from April to June, and they are of a bright yellow with red centre. *Darwin* so named in compliment to Rev. Hugh Davies, F. L. S., a celebrated Botanist in Wales.

7. *EPIDENDRUM CHLOROLUCEUM*, Green and White flowered. Orchidaceæ. Gynandria Monandria. This new species has bloomed in the collection of John Allcard, Esq., in September, 1836, and by that gentleman imported from Demerara; the flowers are rather uninteresting in appearance; they are produced on a raceme of eight or ten upon each, about three quarters of an inch across; they are without scent; sepals and petals green; lip white. *Epidendrum*, from *epi*, upon; and *dendron*, a tree.

8. *EUPHORBIA FULGENS*, Fulgent flowered. Euphorbiaceæ. Dodecandria Trigynia. (Pax. Mag. Bot.) This very neat and handsome flowering plant is a native of Mexico, and has recently been introduced into this country. It has bloomed in the select collection of Lucombe, Price, &c., Exeter Nursery. It is an elegant ornamental Stove Plant; branched upright, leafy, growing freely, and blooming profusely; the leaves at the ends of the shoots are of a pinkish purple colour at the underside, and of a dark green above; the older leaves wholly of a green colour; the flowers are produced in groups of three or four together in constant succession along the shoots; each flower is near half an inch across, of a bright red colour with a small yellow tube. The brilliancy of the flowers, their vast profusion, and elegance of the plant, renders it a very desirable, and which ought to be in every collection of hot house plants. It propagates very easily, and grows rapidly. *Euphorbia*, so named in compliment to Euphorbus, a physician to Juba, King of Mauritania, and who is said to have first used the plant in medicine.

9. *GESNERIA SELLOWI*, Dr. Sellow's Gesneria, Gesneriæ. Didynamia, Angiospermia. This very elegant flowering stove plant has been introduced into this country from the Brazils, and has been specifically named after. Mr. Sellow, a collector of plants, employed by the Prussian Government. It well deserves to be in every collection of hot house plants. The flowers are produced in a raceme, numerous upon each; of a fine scarlet colour. Each flower is about three inches long. *Gesneria* in honour of Conrad Gesner, a famous botanist of Zurich.

10. *LISSOCHILUS SPECIOSUS* Mr. Griffin's Showy *Lissochilus*. Orchidaceæ. Gynandria Monandria. (Pax. Mag. Bot.) A native of the Cape of Good Hope, from whence it was imported by Mr. Griffin, of South Lambeth, London, in whose collection it has bloomed.—It is one of the terrestrial Orchideæ, which flowers freely from May to August; a hot house of moderate temperature appears to suit the plant best. The flowers are produced upon a scape rising two feet high, of a fine yellow colour. Each flower is upwards of two inches across. Like this tribe of orchideous plants, the present delights in a rich loamy soil, mixed with peat and sand, the pot to have a good proportion of drainage, care being taken not to have too large a pot.

11. *MORNA NITIDA*. The beautiful Morna. Asteracæ. *Syngensia Polygamia æqualis*. (Bot. Reg. 1941.) Sir James Stirling introduced this neat and pretty flowering plant into this country in 1835, from the Swan River, Australia; where it is found to inhabit the dry parts of the country. It has bloomed in the very select and extensive collection of R Mangles Esqr. Whitmore Lodge, Sunning Hill, Berkshire. That gentleman exhibited it at the Horticultural Societies' Show, at Cheswick in 1836, and a medal was awarded for it.

It is a neat and delicate plant, producing cymose heads of numerous flowers, each about three quarters of an inch across, of a fine yellow colour. They resemble the flowers of *Elichrysun bracteatum*, but are smaller, and very superior in delicacy and richness. It is a perennial plant, well meriting a place in every collection of herbaceous plants. *Morna*, so named after *Morna* one of the heroines of the northern romances.

12. *NEMOPHILA ATOMARIA*. Speckled flowered. Hydrophyllacæ. *Pentandria monogynia*. (Bot. Reg. 1910.) An hardy annual, probably from California. It was introduced into this country the last year. The flowers are about half an inch across, white, with a slight tinge of blue at the centre, and spotted with small lead coloured spots. When put in contrast with *N insignis*, it is an uninteresting species. *Nemophila* from *nemo* a grave; and *philo* I love, referring to its native habitation.

13. *NUTTALLIA CORDATA*, Heart-leaved. (Bot. Reg. 1938.) Malvacæ, *Monadelphia Polyandria*. A native of North America, where it had been collected by the late Mr. Drummond; and it appears forwarded to the Glasgow Botanic Garden. It is another pretty addition to this handsome genus. The flowers are of a pretty blush colour, each an inch and a half across. It well deserves a place in every flower border, *Nuttallia*, in compliment to Mr. Thomas Nuttall, a writer on Botany, in North America.

14. *PETUNIA VIOLACEA*: *HYBRIDA*. Purple *Petunia*, hybrid varieties. Solanacæ *Pentandria Monogynia*, (Bot. Mag.) 3556.) The impregnation of *P violacæ* and *P nyctaginigora*, has produced several very charming varieties, such as, *Pale Pink* with a dark centre; *Sulphur* with dark centre; *White* with dark centre, and others streaked and veined with dark. The size of the flowers of some of these hybrids has been much increased, some being three inches across. All the tribe merit a place in every collection of greenhouse, or border plants for summer, being highly ornamental in either situation. *Petunia*, from *Petun* the Brazilian name,

15. *PHYCELLA BREVITUBA*, Short-tubed. Amaryllidacæ. *Hexandria Monogynia*. (Bot. Reg. 1913) A neat and pretty species, which it appears will flourish out of doors if planted in a dry and warm situation. The Honourable and Reverend Mr. Herbert has grown it successfully in this way, and in his treatise on Amaryllidææ, to be published this month, some instructions upon their treatment will be given, which being the result of many years observation and practical experience will be very valuable. *Phycella* from *phytos* red alkanet colour.

16. *RYTIDOPHYLLUM AURICULATUM* Gesneriacæ. *Didynamia Angiospermia*. (Bot. Mag. 3562) Recently introduced into this country to the Glasgow Botanic Garden, its native country is not known, but it is probable from the West Indies consequently (if so) will require a hot house treatment. The stem rises several feet high producing cymes of flowers of a fine yellow, spotted with red inside, and a yellowish green outside. The tube is near an inch long, and the five parted monophyllous corolla is near three quarters of an inch across. *Rytidophyllum*, from *rutis*, *idos*, wrinkle; and *phullum* a leaf.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON *IPOMOPSIS ELEGANS*.—I hoped some reply would have appeared in the Cabinet this month, to the observations of Medicus in your February Number on the *Ipomopsis Elegans*. Like him I have raised plants that have grown well till they appeared ready for flowering, and then they have withered and died. I have tried them in the borders and in pots, in the open air and under shelter, but have not succeeded in any way, the soil of my garden is very light, and all the species of *Gilia* succeed remarkably well in it. I am a great admirer of the varieties *Zinnia Elegans*, and have cultivated them with great success, but I frequently find that when they are growing luxuriantly, without any apparent cause, the main stem withers, and they die. This occurs at all stages, from seedlings an inch high, to plants in full bloom. If you, or any of your correspondents can point out a successful method of cultivating the above plants, you will oblige
LOLOTTE.

I am uncertain how to address you, I wish you would state in your next Number of the Cabinet, which I have taken in from its commencement, and find it highly useful.

12th March, 1837.

ON CLEARING A GARDEN OF FROGS.—I shall be much obliged if you, or any of your Correspondents can inform me of the best method of clearing a garden of young frogs, which are very abundant, as there is a large pond on the premises, though it is far from being damp. Should I not succeed in destroying them, have I reason to fear they will still be injurious as well as disagreeable? When will Rosa continue her remarks on budding roses, for I have been unable to find them, since the March Number, though she promised then to continue them in the May or June Number. I hope this may not be too late for insertion in the August Number, in time to destroy the frogs when young.
KALMIA.

ON DOUBLE CLARKIA.—I see in the last month's Cabinet J. King enquires about the double Rose Clarkia. I never heard of such a flower before. I should be obliged if Mr. Kernan would give an explanation. Is not Clarkia Elegans Rosea, and Double Rose Clarkia the same?

March 15th 1837.

PELARGONIUM

ANSWERS.

BEST FIFTY SORTS OF DAHLIAS.—I herewith send you a list of what I consider the best fifty sorts of Dahlias of last year's cultivation. Not living near the metropolis, I have not had an opportunity of seeing the flowers of the new sorts of Dahlias, but I doubt not but "*Pensee*," in last month's Cabinet has already described the best fifty sorts that will come out this year.

Acme, Harris's
Agenoria
Alpine Shepherdess.

Aurora
Angelina
Adelia

Apollo
Ariel
Ariadne
Beauty of Telford
Blue Beard
Brigand Chief
Chamelion
Caluisflora
Conqueror, Harris's
Criterion
Dodd's Mary
Duchess of Buccleugh
Dr. Halley
Enterprize
Glory
Gutatata Perfecta
Honorable Mrs. Harris
King of the Fairies
Lady Lacelles
Lavinia
Lilac Perfection
Lord Nelson

Lovely Ann
Madona
Madame Vestris
Magnum Bonum
Micans
Miss Penfold
Mrs. General Grosvenor
Napoleon
Newich Rival
Perfection Yellow
Perfection, Holman's, Scarlet
Queen Elizabeth
Sterling Gold, Rendle's
Rose Incomparable
Rose Pink
Springfield Rival
The Gem, Brown's
The Rival
Vandyke
Venus
Village Maid
Vulcan

P. S. The prices can be seen by referring to the Dahlia Catalogue at the end.
AN ADMIRER OF DAHLIAS.

March 6th 1837.

FORTY SUPERB SORTS OF HEARTSEASE.—Seeing a request in the Cabinet for March that some Connoisseur of Heartsease would send a list of the best forty sorts, I have taken the liberty of forwarding the annexed selection of names; your correspondent wishes also for a description of the colours, &c., but that, I must beg to believe as a Pancey is far more difficult to describe than a Dahlia, or indeed any other florist flower, for although the colours and pencilling are very different to observe, I am afraid a written description would make them appear very similar.

I can however recommend all I have quoted as first-rate sorts.

R. S. MOUNTJOY.

Ealing, Middlesex, March 15th, 1836,

Thomson's King
Thomas's Anne
Thomson's Lord Glamis
Thomson's Lilac Perfection
Thomson's Enterprize
Thomson's Desdemona
Thomson's Gem
Thomson's Sir John Broughton
Thomson's Ponomia
Thomson's Nonpareil
Rogers's John Bull
Rogers's Minerva
Lane's Lucifer
Lane's Countess of Bridgewater
Page's Hornsey Hero
Marshall's Reform
Brennon's Hector
Mountjoy's Hecuba
Mountjoy's Magnum Bonum
Mountjoy's Andromache
Mountjoy's Xantippe

Mountjoy's Cedo Nulli
Mountjoy's Beauty of Ealing
Mountjoy's Blucher
Mountjoy's Cupid
Mountjoy's Van Tromp
Mountjoy's Sir John Seabright
Mountjoy's Duke of Sussex
Mountjoy's Ealing Rival
Mountjoy's Black-eyed Susan
Mountjoy's Harriet
Mountjoy's Madamselle Grise
Mountjoy's Maid of Judah
Mountjoy's Forbisher
Mountjoy's Flora
Mountjoy's Sophia
Mountjoy's Jesse
Mountjoy's Matilda
Mountjoy's Cream
Mountjoy's Voluna
Mountjoy's Evelina

A few of them are not yet ready for sale.

REMARKS.

A LIST OF SUPERIOR GERANIUMS.

<i>Geranium—Amabile Splendens of African.</i>							
	£	s.	d.		£	s.	d.
Alecia	3	0	0	Mennon	0	7	6
Ariadne	1	1	0	Lady Denbigh	0	7	6
Arbaces	1	1	0	Touchstone	1	1	0
Bellissima	1	1	0	Mar's	1	1	0
Beauty of Ware	1	1	0	Queen of trumps	1	1	0
Countess of Jersey	2	2	0	Lady Ashley	1	1	0
Don Jaune	1	1	0	Maid of Artois	1	1	0
Diomedes	0	5	0	Lydia	1	1	0
Francesco	1	1	0	Nussidora	2	2	0
Grand Sultan	1	1	0	Incarnation	1	1	0
Compactum Rubicum	1	1	0	Louis	1	1	0
Piadematum Rubescens	0	7	6	Maid of Athens	0	15	0
Rouge et Noir	1	1	0	Hector	0	5	0
Membrant	1	1	0	Constance	0	5	0
Queen Bess	0	7	0	Duverrey	0	5	0
Miss Annesley	0	5	0	Miranda	0	5	0
				Hericratianum	0	5	0
				Pictum	1	1	0

Those I consider very fine flowers, and such as I can strongly recommend.
Surrey Lane Nursery, Battersea, London. N. GAINES.

ON DESTROYING ANTS.—I have at last hit on an expedient of destroying them, and that is merely anointing their runs with gas tar. We use large quantities of it here, for painting doors and fences. I have also found it useful in preserving the bark of fruit trees from hares and Rabbits. It should be put on very lightly with a paint brush.

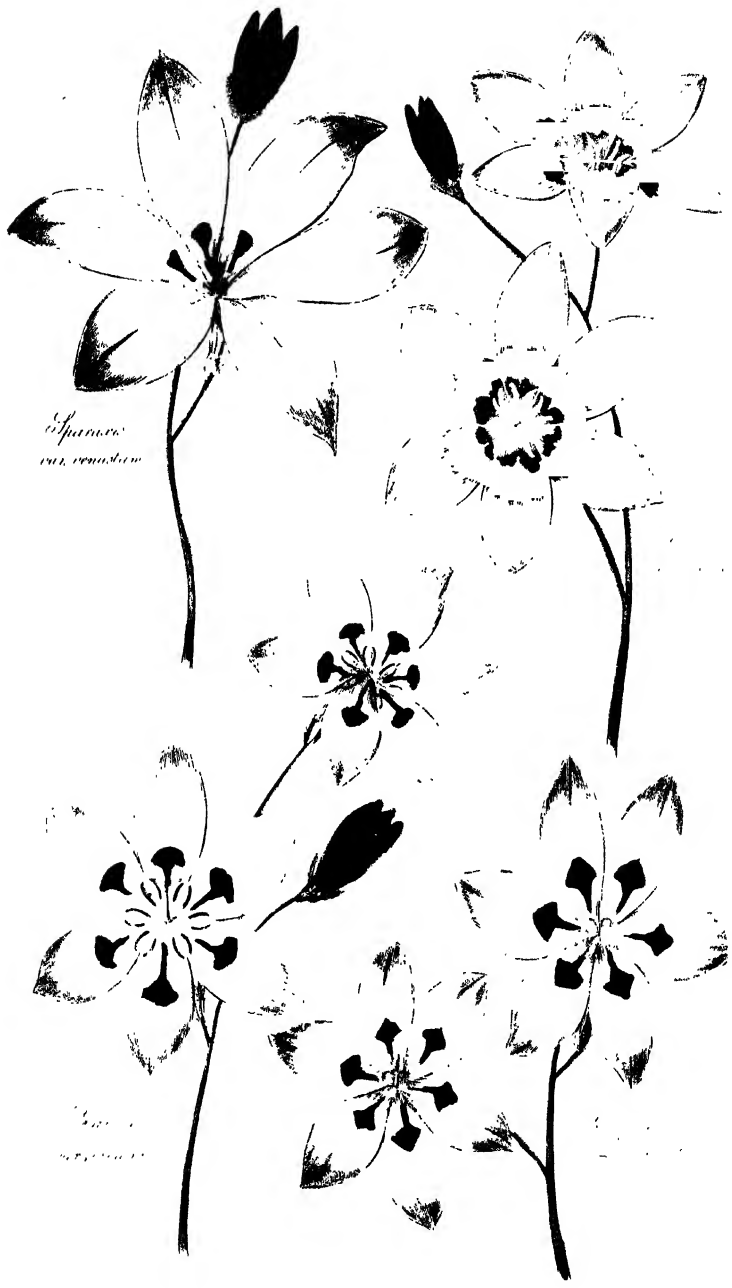
MR. KERNAN'S LETTER.—THE DECEASE OF MR. SABINE.

DEAR SIR,

I got your letter, and mentioned to Mr. Sabine how his name was omitted as the author of the Article he had desired me to mention to you. He felt pleased at the acknowledgment of the obligations you were under to him.

But it is a painful truth to me to have to inform you of Mr. Sabine's sudden death. Never did I receive intelligence that more affected me, as he had been in my shop the week before, as he was in the habit of being once almost every week when in town. In his death I have sustained a great loss; from his kind and fatherly instruction and advice, and feeling always happy in giving me any information he thought would be of service to me, and the great interest he took in recommending me to his friends and their orders. Surely then I have reason to regret his loss, nor can his enemies say in his early encouragement of so humble and so young a man as myself he could have had any object, it was on his last visit I had talked of yourself and Mr. Marnock, and asked his advice on the following paragraph; I intend putting at the bottom of my Catalogue, as my advice on the blooming of Annuals.

"It may be questioned why I place some annuals (heretofore considered and placed in other Catalogues under the heading, Half Hardy,) in my present List—Under Hardy. I do so from practical observations, seeing those I have so removed to Hardy, when so treated, blooming to much greater perfection than when raised in a hot frame and afterwards transplanted.—One plant, raised in the open border, will generally grow to six times the size of one raised in heat and transplanted. In sowing Annuals in the open border that are rather tender, if the soil is not light and sandy, give a top dressing of pit sand and rotten manure: smooth this well with the rake—then draw very shallow drills from half an inch to one inch in depth, regulated by the size of the seeds—sow and cover in; if vermin or the season do not disturb them, you will not



Ranunculus
repens, L.

Ranunculus
repens, L.

require more than one plant in a hundred of those that come up; be careful to begin thinning when the plants are quite young. Do not sow delicate Annuals in the open borders until the end of April, or (which is better) make two sowings, one in the middle of April and the other in the beginning of May; these will succeed each other until October.

I would here advise my Friends to try the above plan with those marked [*], which will be found among the Half Hardy Annuals."

He told me I was quite right and that I should make it public if I did not care for being abused for a good intention, I said of those I had removed to hardy, were grown with that care and attention generally bestowed on them by ladies or clergymen, I very little feared the result. None but friends could envy his good advice to me, and his whole countenance would beam with satisfaction when he observed how I appreciated his council, and when he brought me an order he would put me to the test of my knowledge by patting up a certain quantity that would in my opinion make most show and follow best in succession, in making such selection I was almost always fortunate in meeting with his approbation.

That he had many old and inveterate enemies, I have often heard, but from what real cause I know not. But by principle I know he was a gentleman that disdained dishonour, and his zeal and devotedness to the advancement of the science of which he was an eminent member, had few, very few superiors; and whether he was considered in his private or public station as a Botanist, in my opinion, there never breathed a being less capable of exciting enmity against himself, or of offering even by implication an offence to others than Joseph Sabine, Esq. if he had a fault it was an error attributed to his noble nature, to be deceived rather than suspicious, and his remorseless enemies knowing such, made, or tried to make him their victim, but he lived to see the day that out lived them all, some of the calumnies it is thought preyed heavily upon him, though circulated too often by those who had just head enough to invent censure, but not heart sufficient to feel for its consequences.

Others there are who from the estimation he deservedly was held in, felt a sympathetic remorse, and would have been glad of his forgiveness, having seen their error; but who like a "certain medical tree yields not its healing balm, till it is once wounded," and though every abuse was heaped upon him, it should not have been forgot he was the founder, and laboured hard to establish the Horticultural Society, and encourager of every thing else where his assistance had any tendency in forwarding science; as Sir T. Ackland justly said, they ought to take into account the great good he had done, and not leave all the blame at his door. He who strike or maim a man may remedy in a great way by medicine, but there is no herb, nor compound of herbs cultivated from Culpeper, to the present time, in any of our Botanic or Horticultural gardens that would cover or heal the wound inflicted by slander—but no power could stain the "unsunned" snow of a character and intentions as pure as his was. There are many young men to my knowledge, deeply indebted to his kindness and encouragement, none certainly more grateful, but many more competent to do greater justice to his memory than your

Humble and obedient Servant,

4, Great Russell Street, Covent Garden London,

J. KERNAN.

REFERENCE TO THE PLATE.

Sparaxis's.—The four figures are a small portion of a spike of each sort. They are hybrids, raised by a gentleman in Guernsey, who deserves the thanks of every cultivator of this lovely and interesting tribe of plants. We believe the gentleman would have pleasure in exchanging with any amateur or nurseryman for other plants; the address of the gentleman we can supply. We subjoin a portion of the remarks sent us at the time the drawings came.

Guernsey, Jan. 20th 1837

"In conformity to the offer I made you some weeks since, I now avail myself of a private hand to forward you the drawings of seventeen kinds of *Ixias*, *Sparaxis*'s and other Cape bulbous plants which I offered you, I grow all the kinds and the sketches were made for my own private use only, they are very faithful representations. Almost all the kinds ripen their seeds freely here in the open air, and grow and flower so much larger, stronger, and and brighter in colour in consequence of being so cultivated, that after two or three years, it is almost impossible to recognise the small pale flower received from England. Some *Ixias* raised here from seed, attain the height of three and a half, and even four feet, with spikes of flowers in proportion, and the bulbs themselves nearly the size of *Gladioli*. The double ring of black in the throat of some of the seedlings. *Sparaxis*'s is a new and very beautiful feature in those charming and interesting flowers. We have usually found this class of plants to succeed best when grown in a mixture of decayed leaves, sandy loam and peat; having the pots, or if in the open air, the border well drained." We hope the gentleman will favour us with the mode of culture, which has been so very successful. For although the climate be very congenial, some other exciting cause has contributed to such extraordinary large productions. The great beauty of *Sparaxis*'s and *Ixias* continuing in bloom in the open border from May to July, and some even to August, render them well deserving an attempt in every warm situation. We have seen them in this part of Yorkshire flourish amazingly in a border at the front of a vinery, peach-house, and greenhouse, and close to a south aspect or fruit wall. There is but little attention required in their management, and they most amply repay for any given them.

FLORICULTURAL CALENDAR FOR APRIL.

PLANT STOVE.—Still support the requisite degree of heat by fires at night as the plants will now begin to show their blossoms, which should be encouraged as much as possible at this season. Fresh air, when the weather is favourable, is very necessary, and should always be admitted when required; this will greatly assist their flowering, and cause the new shoots to be strong and healthy. This month is the most proper time to pot such plants as may require it, taking great care to use such compost as is congenial to them. Any that do not require shifting into larger pots may have the surface soil renewed with fresh compost, which will greatly invigorate them, and also add to their neatness. The same directions respecting watering and cleanliness may be observed, as given last month. Still propagate all kinds of exotics by means of seeds, cuttings, layers, or suckers, according to the nature of the different kinds; insert them in pots, and plunge them in hot-beds, which will promote their vegetation and rooting quickly and certainly.

GREENHOUSE.—These plants will now require large admissions of air at all times when the weather is mild, for as most of them will now be shooting freely, they must not be kept too close. The plants must now be looked over, to see when water is wanted, and let all the plants be properly supplied therewith, as this is now a very necessary article, particularly when they are in the house; be careful of the succulent kinds. Let no decayed leaves or shoots be allowed to remain, but let such be taken off as soon as perceived; and all shoots that are of a weak straggling growth must be pruned more or less, as appears necessary. Let no weed, moss, or litter, be seen on the tops of the pots and tubs; and if any foulness be contracted on the plants, let it be instantly removed. In arch shrubby exotics of any particular kinds—sow seeds in pots, placing them in a hot-bed; sow seeds of orange, lemon, &c. for stocks; also propagate by cuttings, layers, or otherwise, and if placed in a bark bed in the pine stove or hot bed, they will be greatly facilitated in their rooting.

HERBACEOUS PERENNIALS—should now be divided and re-planted; also biennials, as Sweet Williams, &c., should be planted for blooming this season.

THE FLORICULTURAL CABINET,

MAY 1st, 1837.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON A LIST OF PERENNIAL PLANTS.

BY R. T. W. T.

THE request of "A Collector of Herbaceous Plants," contained in the August Number of your valuable Periodical, not having as yet met with any attention from more experienced Florists, I venture to recommend the following list of hardy perennials, which I cultivate myself, and which your correspondent may readily procure at any of the principal nurseries. I purposely omit many plants that are suitable to rock-work, having already given a list in the June Number 1835.

BOTANIC NAME.	ENGLISH NAME.	FLOWERING MONTH.	COLOUR.	HEIGHT.
Achilloa ptarmica plena	sneeze-wort yar-row double	July to Sept.	milk white	3 feet
Achilloa millefolium -	common yarrow, or milfoil	June August	reddish purple	3 feet
Allium - -	garlic	June	yellow	1 foot
Anthericum Liliago (a) -	grass leaved sa-voy spider wort or St. Bruna's lilly	July	white	2 ft. 6 in,
Astor alpinus	Alpine starwort	June July	purple	8 inches
— amellus	amellus	August Oct.	blue	2 feet
— spectabilis		Sept. Oct.	blue	2 feet
Antirrhinum majus	great snap dra-gon	July August	white with a large yellow palate white in front.	2 feet
.....	....	....	fine deep crimson	2 feet
Antirrhinum majus bicolor	....	....	crimson and white	2 feet

(a) Also called Phalangium Liliago.

BOTANIC NAME.	ENGLISH NAME.	FLOWERING MONTH.	COLOUR	HEIGHT
<i>Bellis hortensis</i>	garden daisy	May June	large double red	7 inches
— <i>variegatus</i>	variegated	....	white and red	7 inches
— <i>albidus</i>	white	....	white	7 inches
— <i>fistulosa</i>	quilled	....	white and crimson	7 inches
<i>Beton officinalis</i>	wood betony	July August	crimson	16 inches
<i>Calliopsis lance-olafa</i>	spear-leaved tick-seed sun-flower	June Oct.	bright yellow	3 feet
<i>Calliopsis tenuifolia</i>	slender leaved	....	yellow	1 ft. 8 in.
<i>Campanula azura</i>	bell flower	June July	sky-blue	2 feet
— <i>Bononiensis</i>	....	July August	blue	4 feet
— <i>Carpatica</i>	— carpathion	June	blue	8 inches
— <i>Colina</i>	— sage-leaved	July August	blue	2 feet
— <i>glomerata</i>	— clustered	June	blue	10 inches
— <i>ritida</i>	— smooth-leaved	July	white	10 inches
— <i>speciosa</i>	— showy	June	blue	4 inches
— <i>urticifolia</i>	— nettle-leaved	May to Oct.	purple	2 feet
<i>Cardamine pratensis</i>	meadow ladies' smock cuckoo-flower	April May	white	6 inches
<i>Centaurea (h) glastifolia</i>	wood-leaved century	July	yellow (b)	4 feet
<i>Centranthus ruber</i>	red valerian	June Sept.	rosy red	2 ft. 4 in.
<i>Chelone barbata</i>	bearded chelone	July August	orange	4 feet
<i>Chelone centranthifolia</i>	valerian-leaved chelone	June Nov.	bright scarlet	3 to 5 ft.
<i>Clematis erseita</i>	upright Virgin's bower	July	sulphur colour	4 ft. 6 in.
<i>Commelina tuberosa</i>	tuberous-rooted commelina	June Oct.	sky-blue	1(c) to 2 ft.
<i>Coronilla varia</i>	various coronilla	June July	purple	2 ft. 6 in.
<i>Dictamnus</i>	<i>Fraxinella</i>	June	red	2 ft. 6 in.
....	....	....	white	....
<i>Dodecatheon (d) Meadia</i>	common, or Mead's American cow-slip	May June	....	1 ft. 4 in.
<i>Doronicum pardalinches</i>	great leopard's bane	May June	yellow	2 to 3 ft.
<i>Epilobium spicatum</i>	willow herb	July	white	4 ft. 6 in.
<i>Genista sagittalis</i>	Dyers' green weed	May June	yellow	1 foot
<i>Gentiana Acaulis</i>	gentianella	March April	rich blue externally	3 inches
<i>Geranium phœum</i>	dusky crane's bill	May June	dark chocolate	1½ or 2 ft.
— <i>sanguineum</i>	bloody	June July	blood colour	1½ foot
— <i>striatum</i>	streaked	June July	white petals	1 foot
<i>Geum Quellion, or coccineum or Chilense, or Chili</i>	<i>avens</i>	June July	bright scarlet	2 feet

(b) The scales of the calyx present a beautiful silvery appearance, and the veins of the leaves are prominent on both their sides.

(c) If raised from seed, but 3 feet if old roots are planted,

(d) Flowers best in the shade and peat soil

BOTANIC NAME	ENGLISH NAME.	FLOWERING MONTH.	COLOUR.	HEIGHT.
<i>Gnaphalium (e) arenarium</i>	sand everlasting, or cud-weed	June July	yellow	11 inches
<i>Hylianthus multiflorus</i>	many flowered perennial double sun-flower	Aug. Nov.	yellow	3 feet
<i>Hesperis Matronalis</i>	common dames' violet	June	white double	1 ft. 4 in.
— <i>purpurea</i>	....	....	purple	..
<i>Lathyrus sylvestris</i>	narrow-leaved everlasting pea	July August	corolla variegated	5 or 6 ft.
— <i>grandiflora</i>	large-flowered do.	June Sept.	rose	..
— <i>latifolius</i>	broad-leaved do.	July August	fine rose-colour	..
<i>Lithospermum purpureo-ceruleum</i>	creeping or purple grom-well	May June	violet blue	1 foot
<i>Lupinus polyphyllus</i>	many-leaved lupine	June July	blue	2 feet
— <i>alba</i>	....	..	white	..
<i>Lychnis chalcidonica</i>	lynchis or campion	July	scarlet	3 feet
— <i>plena</i>	....	July Octr.	scarlet double	3 feet
— <i>dioica</i>	batchellor's buttons	June	red	11 inches
— <i>Flos cuculi</i>	meadow lychnis ragged robin	June	rose colour	1 foot
— <i>Flos Jovis</i>	umbellate rose campion	July	rose	4 feet
— <i>Viscaria</i>	viscid, or rock lychnis	June	rose	18 inches
<i>Lysimachia vulgaris</i>	great yellow loose strife	July	yellow	3 or 4 ft.
<i>Monarda didyma</i>	twin oswego tea	June Sept.	red and white	3 to 4 ft.
<i>Anothera pumila</i>	dwf. primrose	June	yellow	6 inches
— <i>macrocarpa</i>	long fruited ditto	June to Aug.	yellow	1 foot
— <i>speciosa</i>	showy ditto	July to Sept.	white	1 foot
— <i>taraxacifolia</i>	dandelion-leaved ditto	July to Oct.	large white	6 inches
<i>Pæonia albiflora</i>	edible-rooted peony	June	white double	3 ft. 6 in.
— <i>Whitleyi</i>	rose peony	June July	rosy	3 ft. 9 in.
<i>Phlox crassifolia</i>	thick-leaved lychnidia	April	pink	1 inches
— <i>eximia</i>	choice	July August	rosy pink	2 ft. 8 in.
— <i>Lyonii</i>	....	July August	dark lilac	3 feet
— <i>odorata</i>	sweet scented	June	rose lilac	3 feet
— <i>ovata</i>	oval-leaved	June	pink	6 inches
— <i>paniculata</i>	panicked	July August	lilac	1 ft. 6 in.
— <i>reflexa</i>	reflexed leaves	July August	dark pink	3 feet
— <i>setacea</i>	bristly	May	pink	3 inches

(e) Called by the French "Immortelle," and used to decorate their graves. And here I would correct a mistake I made in my list of ROCK PLANTS, as the "*Gnaphalium Armerium*" I have given there is properly "*Antennaria Dioica*" which

BOTANIC NAME	ENGLISH NAME.	FLOWERING MONTH.	COLOUR.	HEIGHT.
<i>Phlox suaveolens</i>	....	June Sept.	white	2 ft. 4 in.
— <i>tardiflora</i> , or <i>longiflora</i>	late-flowering	August	white	2 feet 2
<i>Whelleriana</i>	Wheeler's	June Sept.	pink purple	3 feet
<i>Polemonium cæruleum</i>	blue Jacob's ladder—Greek valerian	May June	blue	2 feet
— <i>album</i>	....	....	white	..
— <i>Mexicanum</i>	Mexican	....	blue and white	..
<i>Potentilla formosa</i>	handsome cinquefoil	June Sept.	rose	2 feet
— <i>atrosanguinea</i>	....	....	dark blood	..
— <i>Russiliana</i>	Russel's hybrid	....	crimson	..
— <i>Hopwoodiana</i>	hopwood's	....	white	..
<i>Pulmonaria officinalis</i>	common lungwort	April	White and blue	8 inches
<i>Pyrethrum uliginosum</i>	marsh feverfew	July Sept.	white	3 feet
<i>Rudbeckia fulgida</i>	shining rudbeckia	July August	yellow & blackeye	2 feet
<i>Rudbeckia hirta</i>	hairy	....	yellow	5 feet
<i>Ranunculus acris</i>	upright crowfoot	May June	yellow	2 feet
— <i>platanifolius</i>	platanus-leaved (g)	May June	white	8 inches
— <i>montanus</i>	mountain	June	yellow	2 foot
<i>Saxifraga aizoon</i>	marginated saxifrage	May April	white spotted	6 inches
— <i>crassifolia</i>	thick-leaved	June	pink	1 foot
— <i>ceratophylla</i>	shining calyxed	June	white	6 inches
<i>Symphytum officinale</i> var. <i>Bohemicum</i>	comfrey	May June	bright crimson	8 inches
<i>Stenactis speciosa</i> (h)	showy stenactis	July Oct.	dark violet	2 feet
<i>Tetragonolobus siliculosus</i>	square-podded winged pea	July Aug.	yellow	....
<i>Tradescantia Virginica</i>	Virginian spiderwort	June Sept.	bright purple	1 to 2 ft.
<i>Trollius Europæus</i>	European globe-flower	May June	yellow	2½ ft.
<i>Veronica spicata</i>	spiked speedwell	July Sept.	deep blue	4 to 8 in.
— <i>urticifolia</i>	nettle-leaved.			

Nov. 12th, 1836

R. T W. T.

(f) Divide the root in *SPRING ONLY* when it begins to vegetate, and plant in a warm situation.

(g) Or Fair Maid of France.

(h) Seedlings of the *Stenactis Speciosa* flower freely the first year, and perfect the seed, so that it may be treated as an annual.

ARTICLE II.

ON THE CULTURE OF THE AURICULA, WITH A LIST OF
SUPERIOR KINDS.

BY G. R.

HAVING promised to send you a list of the most esteemed varieties of Auriculas which generally appear for competition at the different society-meetings in this neighbourhood, I now give you the name of a few which may be considered amongst the finest. They will, perhaps, assist some of your readers in selecting a few of the most choice-varieties; should any of them be about to commence a collection, and will give those who may be otherwise interested, an idea of the plants which are held in the greatest estimation in this quarter.

Many lists of choice Auriculas contain the names of several, the flowers of which have a great tendency to vary from the original colours, from unaccountable causes, and which, by florists, are termed sporting varieties. In the same list are found others which are liable to change colour a short time after they are fully expanded. Such flowers may occasionally be considered as fine, and might be presented for competition. Their general character however, not being such as to warrant their insertion in the following select list, I have omitted them. All Auriculas are subject in a great or less degree to present an ununiform appearance of bloom, their flowers in some seasons being much more perfect than in others. The following, when well grown, will be found to have less tendency to do so than most others. Some growers will, perhaps, find a few of those mentioned, classed differently from what they are accustomed to find the appearance of the plant when in bloom, which in some measure may be thus accounted for. Auricula-growers in general, adhere to a compost of their own in many cases differing considerably in its composition, and it therefore may naturally be supposed that the bloom of the plant, in some degree will vary accordingly. It being however a difficult matter to decide to what class they should belong, I have classed the following according to the colour of edging, which I have generally found them to present. Plants grow in very rich stimulating composts, for the purpose of obtaining large high-coloured flowers, certainly produce a beautiful green foliage, strong trusses, and large pips, but the bloom altogether is seldom fine, as being

very liable to run and become foul, by which is understood that either the ground-colour, edging, or eye, predominates, which entirely destroys the appearance of the flower: those grown in a more moderate soil generally produce a much finer and more regular flower, and beside, will have less tendency to impair the health and strength of the plant. Those persons who have grown Auriculas will not perhaps have remarked that green and grey-edged flowers are seldom so fine and true to their character when produced from a stem rising from the centre of the plant, as those produced from one rising from the side of it, and that white edges are the reverse: most perfect flowers generally being produced from a stem rising from the centre. Self-coloured flowers join with green and grey edge in this peculiarity. Shaded alpine are a class which seem to be little cultivated here, therefore I have not been able to add them to the list. There are a few plants here mentioned which as yet have but a limited circulation; they were raised in this neighbourhood by Mr. Smith, at Ellengowan, and Mr. McDonald, at Dumninald, both of whom have been very successful in raising fine varieties; several of these when well grown, have proved to be of very superior order, and, have obtained prizes at different shows in this quarter, competing against many of the finest flowers in cultivation.

Having for my own amusement grown Auriculas for several years with great success, of which my collection at present amount to two hundred and fifty strong healthy plants, comprising one hundred and forty of the finest varieties; it was my intention to have added my mode of cultivating and managing this favorite flower; but this appears to me unnecessary from the excellent articles which have appeared in several of the preceding numbers of the Cabinet, I shall therefore merely state that the compost I make use of consists of six parts of manure, at least three years old, gathered from pasture fields, and one part of white sand, and conclude by briefly mentioning the following principal points to be attended to in order to grow Auriculas in perfection.

Adhere to as simple and rich a soil as possible, avoiding all obnoxious and stimulating manures. Pay attention to good drainage at the bottom of each pot. Avoid too often reducing the fibrous roots of the plant, and examine occasionally, perhaps every three years the lower end of the main root, a part of which will require to be taken off. Do not delay making the examination, when you observe the leaves of a plant becoming spotted of a yellowish hue,

a certain sign of its being unhealthy, and the disease is often found to arise in the main root. Keep the plants during summer in a cool shaded situation during the day, giving them water occasionally. Be careful to keep them from being exposed for any length of time to heavy rains, or under the drip of trees. Place them under cover open towards the south by the beginning of November. Guard against damp by giving as much air as possible at all times. Let them have water very sparingly until February, when you may give it more freely. See that they are not exposed to any drip of water from any deficiency of the covering of the frame, whether of wood or glass. Keep the plants rather warm during the winter and spring months, which will add greatly to the expansion of the pips. Remove any damp decayed leaves from the plants, but suffer those leaves that are dry to remain until the time for top dressing. By the beginning of March add a little fresh soil to the surface of each pot: give water freely during this and the two following months. Protect well from severe frosts. Thin out pips, leaving from five to nine on each plant according to its strength. Allow but one flower stem to each plant. Contrive to give them all the air possible. Shade them from the sun when they are in full bloom by placing the front of the frame to the north.

LIST OF AURICULAS.

Green edge—Booth's freedom	Green edge.—Hedge's Britan-
Howard's Lord Nelson	nia
Mather's Brilliant	Pearson's Badajoz
Ryder's royal Sovereign	Page's Champion
Lee's Colonel Taylor	Vallington's Nottingham
Fletcher's ne plus ultra	hero
Smith's Lord John Rus-	Chillot's Britannia.
sell	Coldham's Blucher
Pollit's standard of Eng-	Clough's Dolittle
land	Barlow's King
Pollit's ruler of Eng-	Moore's Jubilee
land	Bearliss's superb
Dawson's George Can-	Steeche's Alexander
ning	
White edge.—Campbell's Ro-	Ditto Venus
bert Burns	Pott's Regulator
Lee's Earl Grosvenor	Taylor's glory
Hugh's pillar of Beauty	Ditto Princess Royal
M'Donald's Miss Arkley	Ditto favorite
Smith's Jupiter	Wood's delight
Ditto freedom	Lee's bright Venus

Grey-edge.—Smith's General
 Bolivar
 Ackerley's Alpine shepherdess
 Clegg's General Morillo
 Faulkener's ne plus ultra
 Grime's Privateer
 Hey's Lovely Ann
 Kenyon's ringleader
 Oliver's lovely Ann

Pearson's liberty
 Ryder's Waterloo
 Syke's complete
 Thompson's Bang up
 Ditto revenge
 Ditto cottager
 Taylor's ploughboy
 Waterhouse's conqueror
 of Europe.
 Warris's union

Selfs—Burrie's Lord Primate
 Ditto Lord Lee
 Campbell's Lord Byron
 Gorton's Stadtholder
 Grime's Flora's flag
 Miller's Lord Howe
Forfarshire, March 11th, 1837.

Selfs—Martins's Eclipse.
 Netherwood's Othello
 Redman's Metropolitan
 Scholey's Ned Leed
 Fintu's Rosetta
 Whittaker's true blue

ARTICLE III.

ON THE SOIL PROPER FOR AURICULAS, AND THE CULTURE OF THE GENUS LUPINUS.

BY AMICUS FLORIBUS.

HAVING had a few of the most showy plants made a present to me, and they being, as I am told, of a superior description, I have long wished to get a recipe from your extensive, and well regulated Cabinet. I was perusing the number for February, in the present year, and felt myself very much gratified, to find some information on the culture of the above named plant. (by James Shepperd.) He gives very good remarks on the cultivation of the plants, but omits the preparation of the soil used; he recommends a light, rich, and sweet soil: now for an amateur, this appears rather complexed. He also says, he has for the last ten years, followed the plan laid down by Mr. Emerton, but loosing so many plants, he feels convinced, that his plan is not a good one. Would he be so kind as to favor me with his recipe, or if not, the compost used by Mr. Emerton, it would, I feel convinced, confer a great favor on many, besides one, who subscribes himself

AMICUS FLORIBUS.

P. S. Should this be accepted, I herewith send you a method of cultivation, which I adopted among that splendid variety of plants, the Lupinus. At a time when these plants were scarce, I was

fortunate enough to possess the *Lupinus Marshallianus*, but wishing to make the most of it, I adopted the following method for its cultivation ; in the month of March I took some shoots off, (that is) when they had attained the height of an inch or two from the ground, I planted them in a stiff loamy soil, and copiously supplied them with water, and in four or five weeks, to my great surprise, they were rooted ; I then transplanted them in my flower beds, and to my satisfaction, had them flower the same year, thus from one plant, I had five or six all blowing the same year. The reason of my sending this, is, on account of not having seen any thing of the kind in your valuable and extensive work, and thinking that those who possessed a choicer species would be able to propagate and have a more copious supply. If I have commented too largely on the subject, would you be so kind as to frame it in a more compact compass, to oblige one, who is, and whose friends are true patrons, and well wishers to your widely circulated Cabinet.

ARTICLE IV.

ON THE CULTURE OF THE DAHLIA.

BY S. R. P.

PERMIT me, at any convenient opportunity, the use of your widely circulating medium, the Floricultural Cabinet, to publish a method by which the disappointment so often experienced by amateur growers of Dahlias in the loss of their roots, during the winter, may be avoided, and by which simple means, I have preserved the tubes of these truly splendid flowers, through the dormant months, in the greatest perfection. Let any of the usual means be employed of propagating duplicates of the sorts required to be saved ; but I will describe my own. I take from the growing plants the first lateral shoots, divide them with a sharp knife, under the third joint from the top, and cut off the two bottom leaves a little distance from the stem, without mutilating the eyes that will be seen in the axils of the leaves. These are planted so as to touch the side of the pot, which, if convenient, may be plunged in a little heat ; as soon as they have made roots, they are planted singly in 60s. and finally repotted into 48s. every flower bud is removed, and the growth of the plant promoted till the middle of September,

when the supply of water is diminished, and at the end of the same month, all moisture is suspended : the tallies are firmly fixed, and the pots are set at rest, under the stage of the green-house (a cellar will do) where, by the close adhesion of the earth to the roots, occasioned by the pressure produced in the growth of the tubers, they are preserved in a perfectly plump, sound, and healthy state : not a root can be broken, or an eye disturbed ; besides these advantages, I am led to believe, that their being set thus early at rest, according to a known law in vegetation, there is a tendency to push their buds at an earlier period, than by the usual mode of treatment.

S. R. P.

ARTICLE V.

BOTANICAL CURIOSITY OF THE HYACINTH.

BY W. BRIANT, GARDENER, UPPER GORE HOUSE, KENSINGTON.

I believe it has been asserted by Sir Humphrey Davy, that no species of plant will vegetate downwards. With every respect for that great man, I beg leave to tell you, and, through you the readers of the Cabinet, that such is not the fact, as I have in more than one instance proved. Curiosity induced me at the time of putting in my bulbs, (October) to plant four Hyacinth bulbs in the following manner ; I am particularly fond of the single blue Hyacinth, and therefore singled these out for my object, after procuring my regular compost, which is a mixture of leaf mould, yellow loam, and white sand, I placed one Hyacinth bulb at the bottom of a 48 pot, with the crown through the draining hole, and commenced filling up my pot in the usual manner, and then planted one at the top, and taking it to the green-house, I cut a circular hole in the shelf, so as to admit the pot half-way down.

Both bulbs did vegetate freely, and seemed to vie with each other ; before the flower expanded, I procured a long glass, such as confectioners has for show glasses, and placing the pot on the top of the glass, it seemed to give additional vigor to the flowers to expand, its appearance now, is strikingly beautiful, the natural fragrance of their flowers, combined with the peculiarity of the

growth, would entitle them to true lustre on any lady's toilet, or drawing room table, and such is the deception, that I have been asked by several, if both flowers did not come from the same bulb.

ARTICLE VI.

ON GRAFTING THE ROSE.

BY ROSA.

The following method of cultivating the Rose by grafting, is very interesting, and successful, as well as having the advantage of economy, as you make use of the cuttings of the pruned trees, which would otherwise be lost. It must be remembered, however, that it should only be practised upon free well rooted stocks, as otherwise the delay in the rising of the sap, and the uncertainty of the supply, frequently defeat the purpose. Grafting, therefore, should succeed budding on the same stock, not precede it: as a bud failing on the stock, if the branch be not destroyed while the sap is up, leaves the stock still vigorous in the ground; if therefore you wish to try this mode it, should be upon stocks that have had a spring to root themselves.

The points to be desired, are, that the barks of scion and stock should be cut quite smooth, and not separated from the wood they grow upon—that neither should be bruised—when they are put together they should fit close—a supply of sap should commence as soon as possible—that all sun, wind, and rain should be kept from the wound till healed, and that no ligament should be removed, nor shake given to the parts newly placed in contact, till they are perfectly healed; any jar to the scion when placed is likely to defeat the purpose.

GRAFTING.

If you have a good choice of shoots in March, from your trees, which you desire should not be wasted, examine your shoots after pruning each tree, select those which are the finest, and place their thickest ends (taking care that the produce of each tree be tied in a separate bundle and ticketed) in a lump of moist clay an inch deep, pinch the clay tight round them, and then put the lump of clay in a pot full of earth (leaving the shoots out) until ready for use,

It must be remembered at that the end of each shoot there will probably be one or more buds open; these must be carefully cut off from the shoot or they will infallibly exhaust the others.

Let the shoots remain for three weeks in an outhouse, or any place neither very dry nor very damp, where neither wind nor sun can come in contact with them.

During the first week in March, cut off your stock, (in which the sap should be beginning to rise,) horizontally; make a slit in it, straight downwards, of a couple of inches, or an inch and a half long, taking care not to injure the sides of the bark.

Take the shoot in the left hand, and leaving three buds upon it, or two if the stock be not large; cut the lower extremity of the shoot in the shape of a wedge, the back being rather the thinnest and the lowest bud about half an inch above the thick end of the wedge. In doing which, care must be taken that the bark be undisturbed, and each scion so cut that all the buds point outwards, or at any rate, be so placed that the shoots from them may not interfere with each other.

With the end of your budding-knife, or a little wooden or ivory wedge, open the slit in the stock on one side, and then place the scion, with the thickest part or front outwards, in the other, taking care that the edge of the inner bark or liber of the scion touches the edges of the inner bark of the stock, all the way down; pull out the wedge and enter another scion in its place, the slit being kept open by the first; if the size of the scion be half the size of the stock, you may leave a shoulder to the scion, and thus increase the chances of success.

Any number of scions may be inserted in the same stock, but from one to four are all that are desirable in the present case, to cover well over the head of the stock which is apt to receive much injury from the weather, if not carefully attended to.

The object of laying by the scions, is that the stock may be the forwardest, and be enabled to supply the sap, and force them forward at once, instead of lingering while they perish from exposure and want of nourishment. Whether this danger might be entirely removed by the following new mode of grafting I have not yet had an opportunity of trying.

Leave a small end to the scion, with bark, &c. upon it, and having finished your graft as above, turning the overplus outwards,

and below the clay, insert it in a small phial, kept constantly filled with water, in order to keep the scion fresh until the junction takes place. When well established, remove the phial and cut off the overplus close to the stock, covering it with cement.

When the shoots are on, tie up the whole with a bass ligament, to prevent the scions from ever shifting, and then cover the whole beneath the lowest bud, with grafting clay, taking care to exclude air, sun, and rain. If the clay crack, it must be renewed, not by shifting, but by filling up the crack.

In about six months, the clay may be removed, and the wound covered with mixture, this latter must on no account be omitted.

The choice of scions is regulated by the same rules as the choice of buds, only that in choosing scions some reference must also be had to the wood, which should have a sufficient thickness to keep it from getting dry easily, and to facilitate the operation of sloping the edges. The best buds are generally nearer the base of the shoot than the summit, but two or three scions may sometimes be got from a single shoot. No scion should be used when the buds upon it appear to have shrunk and lost their fullness, from having been laid by, and care should be taken on passing the bass ligament round the stock for the purpose of fixing the scions, that a piece of the bass be brought between the scions in such a manner as to protect the cleft in the centre of the stock from the clay, and to leave the vacuum to be filled up with sap.

Should any graft fail, which will be seen in a longer or shorter space of time, according to the weather, (*viz.* in moist, dull, growing weather it will soon show, in that which is dry, windy, or cold there will be delay,) you have still the resource of knocking off the clay and reserving for use the fresh buds which start from the stock, in which case, cut the stock off immediately above them, and bud in the following autumn as usual.

Grafting the rose, however, leaves a worse wound to heal over than budding, unless the scion be nearly the same size as the stock, or two or three scions of free-growing sorts be entered in the same graft: there is also this disadvantage, that the portion of the scion that is entered in the stock is smooth, and consequently does not from time to time furnish new wood, whereas in budded stocks, shoots occasionally spring from the inserted eye, (and that sometimes years after it has taken.) thus renewing the tree

by preventing it from straggling, as well as giving it a more perfect and handsome appearance.

The advantages of grafting, are, that it clears your garden of wild growing stocks, promises fair for instant success, especially when the scions are from hardy sorts, such as the Du roi, Maiden's blush, &c. and your work is complete and tree formed, and in some cases, flowers in a single season.

In the event of your having neglected to procure stocks, the operation of grafting may be performed equally well with budding upon plants in a neighbouring hedge, and those that succeed can be transferred to the garden at leisure.

ARTICLE VII.

ON THE CULTURE OF THE NELUMBium.

BY C. B. B.

HAVING suggested to your readers the experiment of growing tender aquatics in warm water tanks, and observing that the Horticultural Society have been distributing seeds of *Nelumbium Luteum*, I think a hint on the mode of raising that, and the East Indian *N. Speciosum* may not be amiss, as without such instruction, probably not one person in fifty of those who receive the seeds will rear the plant. For some reason or other, probably to preserve a seed which by sinking in deep water, or being buried in mud, is exposed to many casualties, the seeds of *Nelumbium*, are furnished with an exceeding hard coat, which as long as it remains uninjured resists all soaking, whether in cold or warm water. In order to induce them to vegetate in any reasonable time, it is necessary to file the blunt end of the seed, until it just yields to the pressure of the nail. Thus prepared, the seed should be thrown into a pan of water, the temperature of which is not above 70 degrees. When first sown it sinks, but in the course of forty-eight hours it will begin to push, and as soon as the seed-leaves have protruded a few inches, the young plant rises to the surface, where its leaves expand, and it floats. In a short time it throws down a runner, much like that of a strawberry, which descends to seek the mud. This runner throws out roots, and sends up a leaf and from its extremity a similar runner again descends, and

again another, each rooting and throwing up its leaf, until at length the plant reaches the mud, when it takes root, and begins to produce strong leaves. The best method is to sow the seed in a pan a foot or eighteen inches deep, having four or five inches of stiff mud at the bottom. It is useless, and probably would be injurious to cover the seed with earth, those which I tried to plant in this manner, invariably came up and floated, and if effectually buried, the seed would most likely decay; *Nelumbium Luteum*, seems to delight nearly in the same treatment as its East Indian relations, and the rich deep velvet green of its leaves, form a beautiful contrast to the bluish white of that species. I have not seen its flower, but understand that it resembles *N. Speciosum* in every thing but colour.

Whilst on the subject of aquatics, it may be well to mention that *Nymphæa Lotus* grows very freely from seeds, if they are allowed to seed themselves in the water when ripe, and this is the best way of preserving the species, they come up in the following spring, and flower in the summer. The old roots are very apt to perish. *Nelumbium Luteum*, and *Nymphæa Cœrulea* will probably prove the hardiest of all the tender water plants: but collectors must distinguish between the true *N. Cœrulea*, a very strong and luxuriant growing sweet scented species, and *N. Stellata* a small elegant plant much more tender. I fear, however, that this caution is almost needless, and that *N. Stellata* has disappeared from our collections. The remark may, nevertheless, induce some one who is fortunate enough to possess it, to cherish the delicate stranger, and give it the attention which its tropical nature requires. It is a native of Malabar. *N. Cœrulea* is, I believe, from the Cape of Good Hope.

C. B. B.

ARTICLE VIII.

A LIST AND DESCRIPTION OF CARNATIONS,

BY PENSEE.

I SEND you a list of Carnations with remarks on the merits and faults of each. Should it be considered worthy of a place in your Cabinet, I shall follow up this criticism with another paper,

or two on the same subject, and in like manner pass my opinion on Piccotees, Heartsease, Ranunculuses, and other Florists' flowers.

PENSEE.

[We shall feel grateful for the favour, such articles being very much wanted by the readers in general of the Cabinet, many applications have been made to us by subscribers—CONDUCTOR.]

CARTWRIGHT'S RAINBOW (*crimson bizard.*)

This flower is, perhaps, as well or better known than any other Carnation, can never become common from its shyness in producing grass and propensity to run from colour on the latter account, I have no doubt many plants are constantly thrown out, though in future I would recommend this never to be done, as I believe it possesses a property known in no other bizarse, viz. of returning to colour: two or three instances of this had come to my knowledge when I happened to mention it to one of our first growers, who stated that he had made the same remark, and added that if the flower did not run into a perfect self, he believed it invariably came into colour the following season. The Rainbow is a large flower, very fine in shape, good in each colour, and almost unequalled in the white.

FLETCHER'S DUCHESS OF DEVONSHIRE, (*scarlet bizard.*)

The only fault, and one which cannot but be admitted, is its want of size, in every other respect, in colour, in shape and substance of the petal (in my opinion, a great desideratum) and in the general shape of the flower, it is equal to any in its class: it is very generally grown and as generally admired

(WAKEFIELD'S PAUL PRY, C. B.)

This is a higher coloured flower than the Rainbow, but is seldom as large, though a general good bloomer, yet wanting the splendid guard leaves and size of the Rainbow, can never demand comparison.

WILSNES'S DEFIANCE, (*purple flake.*)

Is a large flower, good in colour, but occasionally deficient in the stripe, or rather the stripe is not equally spread over the bloom, one petal having too much, whilst another is wanting. Yet I have sometimes seen this flower so very fine, that I should consider a collection deficient without it

(*To be continued.*)

PART II.

LIST OF NEW AND RARE PLANTS.

Noticed since our last.

1. *ACROPERA LODDIGESII*, Mr. Loddiges' *Acropera*. (Bot. Mag. 3563.) Natural Order, Orchidaceæ. Linnean Class, Gynandria; Order, Monandria. Synonym; *Maxillaria galeata*. The flowers of this plant are very singularly handsome: they are produced numerously in large pendant racemes, each flower is about an inch and a half across. Sepals of a pretty brownish-yellow. Lip of the same colour. Column, greenish-yellow spotted with red. The plant was introduced into this country by Mr. George Loddiges, from Xalapa of Mexico, and has bloomed in Mr. Loddiges' collection, and in that of the Glasgow Botanic Garden. It merits a place in every collection of Orchideous Epiphytes. *Acropera*, from *akros*, the extremity, and *pera*, beyond, alluding to the little saccate appendage at the tip of the Labellum.

2. *ANAGALLIS MONELLI*, Var. *Celacina*. Lilac flowered Italian Pimpernel. (Brit. Flow. Gard. 377.) Primulaceæ. Pentandria Monogynia. This very handsome flowering variety has been raised between A Monelli and A Fruticosa. It has flowered in the collection of the Hon. W. T. H. F. Strangways, Abbotsbury Castle, Dorsetshire. The flowers are of a rosy, lilac colour, about the size of A. fruticosa. It is a very pleasing variety, well meriting a place in every collection. This as well as its parents are very beautiful flowering plants for a bed in the flower garden during summer, where they make a most brilliant display. Botanists, in general, seem now agreed, that the A. Monelli and A. Grandiflora are nothing more than mere varieties. *Anagallis*, from *anagelo*, to laugh, applied by the ancient Greeks to a plant beneficial in diseases of the liver.

3. *BEGONIA MONOPTERA*. Single Winged. (Bot. Mag. 3564.) Begoniaceæ. Monæcia Polyandria. Mr. Otto, of the Royal Berlin Garden, has most obligingly sent over to this country several highly, interesting, and ornamental species of Begonia. The present species is very handsome. The flowers are white, produced numerously in a terminal raceme. The stems and leaf stalks are of a light red colour, as is the under side of the leaves. The plant is a native of Brazil, from whence it was sent by Mr. Deppe. *Begonia* in compliment to M. Begon.

4. *CEREUS SERPENTINUS*. Serpent-like. (Bot. Mag. 3566.) Cactææ. Icosandria, Monogynia. Mr. Mackay of the Norwich Nursery, purchased the very fine collection of succulents formerly belonging to Mr. Hitchin, and the present species has bloomed with Mr. Mackay. It is a night blooming species, the flowers remaining expanded about as long as C. Grandiflorus. The flowers are of a pale whitish flesh colour inside and a reddish black colour outside. The tube is about four inches long. *Cereus*, from *cercus*, pliant, alluding to the shoots.

5. *CEROPEGIA STAPELIIFORMIS*. Stapelia-like. (Bot. Mag. 3567.) Asclepiadææ. Pentandria Digynia. This most curious flowering plant has bloomed in the Glasgow Botanic Garden, where it had been sent from Kew Gardens. It is thought to be a native of the East Indies, and requires a hot-house temperature. The stems very much resemble those of a Stapelia. The flowers are very singular. Corolla two inches long, tube curved, expanded upwards to form the limb, which is cut into five segments, they are dark purple outside, white and hairy within. The tube is of a greenish white, much spotted with deep purple. The five segments of the corolla curve backwards, and the sides reflexed, so that the upper side having the form of a sharp keel, presenting a most singular appearance. *Ceropegia*, from *keros*, wax, and *pege*, a fountain.

6. *CHRYSEIS COMPACTA*. Dwarf Chryseis. (Bot. Reg. 1948.) Papaveraceæ. Icosandria Tetragynia. Synonym, *Eschscholtzia compacta*. The

present species differs from *C. crocea*, and *C. californica*, in being of a more dwarf habit, and very compact in growth. The flowers too are rather less; they are of a fine bright yellow, with a deep orange centre. The plant deserves a place in every flower garden. *Chrysis*, a celebrated Homeric beauty, the name alluding to the gold colour of the blossoms.

7. *CLARKIA GAUROIDES*. Guara like *Clarkia*. (Brit. Flow. Gard. 379.) *Onograria*. *Oclandria* *Monogynia*. A hardy annual, sent by the late Mr. Douglas from California, to the London Horticultural Society, in whose garden it has bloomed. It is not near so handsome as either *C. palchella*, or *C. elegans*. The flowers are about an inch across, of a lilac-purple colour. They are produced on terminal racemes, but the blossoms are very distant from each other, much more so than in *C. elegans*. *Clarkia*, in compliment to captain Clark, who accompanied captain Lewis to Rocky Mountains.

8. *DATURA GUAYAQUILENSIS*. Guayaquil. Thorn Apple. (Brit. Flow. Gard. 380.) *Solanaceæ*. *Pentandria* *Monogynia*. Mr. Tweedie sent seeds of this species from Peru to Dr. Neill, in whose fine collection at Cannon Mills, near Edinburgh, it has bloomed. It had been grown in the stove. It appears that it blooms in February and March: in its native country, where it grows abundantly in moist places, on the shores of the Pacific, near Guayaquil. The plant is annual, growing three feet high. The flower, with its tube, is about six inches long; corolla, upper half white, lower part greenish. The mouth of the flower opens about two inches. It is very probable that good strong plants, planted out in the open border during summer, would bloom very freely.

9. *DELPHINIUM BARLOWII*. Mr. Barlows' Larkspur. *Ranunculaceæ*. *Polyandria* *Trigynia*. This very superior variety was raised by Mr. Barlow, near Manchester, some few years back. The splendour of its fine double blossoms, renders it a very desirable plant for every flower garden. It blooms during a greater part of summer, its fine blue flowers, tinged with a purplish hue at the centre, produce a most charming effect. The spikes rise from three to seven feet high. The plant may be had of most Nurserymen, or Florists. *Delphinium*, from *Delphin*, a Dolphin, the resemblance of the nectary of the flower.

10. *ECHINOCACTUS SESSILIFLORUS*. Sessile-flowered. (Bot. Mat. 3569.) *Cactææ*. *Icosandria* *Monogynia*. Bloomed in the fine collection of Mr. Mackie of the Norwich Nursery. The spines are short and white; the plant blooms freely, producing several blossoms every year.—Mr. Mackie cultivates the *Echinocactus* tribe with great success. The plants are grown very near the glass, and in the summer time, in a very high temperature, by keeping the top sashes of the house closed. Strong light and heat are very necessary for the blossoms expanding in perfection. Some of the kinds close their blossoms immediately on being removed to a cooler place. It is very necessary to have the pots well drained, as the roots are liable to decay if the earth is at all sodden with moisture. All the kinds thrive best in a good encircled soil, well drained and planted in small pots.

11. *EPIDENDRUM DIFFUSUM*. Spreading *Epidendrum*. (Bot. Mag. 4565.) *Orchidææ*. *Gynandria* *Monandria*. A native of Jamaica, where it is a frequent inhabitant of the trunks of trees. It has bloomed in the collection at the Glasgow Botanic Garden. The flowers are pointed in terminal panicle, six to eight inches, or a foot long, very branched. The flowers are small, little more than half an inch across, very narrow petals, of a light greenish yellow colour. The flowers are rather uninteresting. *Epidendrum*, from *epi*, upon, and *dendrum*, a tree, growing upon.

12. *GESNERA LATERITA*. Brick-red. (Bot. Reg. 1970.) *Gesneraceæ*. *Didynamia* *Angiospermia*. The plant is a native of Brazil, and has bloomed in the stove in the garden of the London Horticultural Society. The flowers

are of a fine red colour, an inch and a half long. *Gesnera* in compliment to C. Gesner, a celebrated Botanist.

13. *LACHENALIA PALLIDA*, Var. *Cærulescens*. Blue-flowering pallid *Lachenalia*. (Bot. Reg. 1945.) A native of the Cape of Good Hope, where it occupies the situation as that of the blue-bells and squills of the European countries. The flower spike is about five inches long, each flower nearly as large as a common blue-bell, of a light-blue colour. *Lachenalia* from—

14. *LÆLIA ANCEPS*, Var. *Berkeriana*. Mr. Barker's variety. (Bot. Reg. 1947.) Orchidaceæ, Gynandria Monandria. It is a striking variety of *Lælia anceps*, it differs however in the petals being much narrower, but much the same size as the sepals. The middle lobe of the lip is narrower and sharper. The sepals and petals are of a beautiful lilac colour, much like *Cattleya labiata*. Each flower is about four inches across. The labellum is of a dark crimson red colour, with the inside white and striped. The plant is a native of Mexico, imported by Messrs. Lowe, & Co., Clapton Nursery. It has bloomed in the collection of George Barker, Esq., Birmingham.

15. *LI MNANTHES DOUGLASSII*, Mr. Douglas's *Limnanthes*. (Brit. Flow. Gard. 378.) Limnantheæ, Decandria Monogynia. This family appears to hold an intermediate station between Geraniaceæ, and Tropæcolceæ. It is a hardy annual, thriving best in a soil composed of peat and loam. The stem of the plant rises about nine inches high, branched, flowering freely, each blossom being about an inch and a half across. The lower half of the flower of a bright yellow, the upper half white. Altogether being pretty. *Limnanthes*, from *limen*, a lake, and *anthos* a flower. Alluding to its habits.

16. *MONOCHANTHUS ET MYANTHUS, ORISTATUS PROLES BIFORMIS*. Orchidææ, Gynandria Driandria. A plant of the *Myanthus barbatus* flowered in the fine collection at Chatsworth, and it also produced a perfect spike of *Myanthus cristatus* at the same time. A vigorous state of culture has a tendency to favour the production of monstrous flowers. A gentleman, who resides in Demerara, states that a flower spike of *Gataetum*, often has on it several distinct kinds of flowers. The spike of bloom at Chatsworth had seven flowers of *M. cristatus* at the upper part of the spike, and seven of *M. barbatus* below them. The flowers of the former are of a greenish-yellow colour, destitute of any spotting with darker. Those of the latter are green spotted with red. The lip has a number of fleshy teeth projecting from the sides and end. Dr. Lindley states in remarks on this sportiveness in orchidææ, that, "the necessary consequence of this in the case of *M. barbatus* and *cristatus* is, that the supposed genera *Myanthus* and *Monachanthus* must be restored to *cataetum*." And Dr. Lindley further observes, that, he has no doubt that the genus *Morinodes* must share the same fate.

17. *OXIDIDIUM CEBOLLETA*. Round-leaved. (Bot. Mag. 3568.) Orchidææ, Gynandria Monandria. Synonyms *Epidendrum Cebolleta*, *Epidendrum juncifolium*, *Orcidium juncifolium*, *Cymbidium juncifolium*. Dr. Sir W. J. Hooker observes, "that, I am not aware that the flowers had been seen in this country, till a fine panicle appeared in the stove of the Glasgow Botanic Garden, and another plant blooming in the collection of Charles Horsfall, Esq., Liverpool. The plant is a native of Trinidad. The flowers are produced numerously on a scape about two feet high, much branched and panicle. The flowers very much resemble those of *Orcidium flexuosum*. They are of a bright sulphur yellow colour, spotted with deep red, producing a very neat and pretty appearance. The plant deserves a place in every collection.

18. *PENTSTEMON CREVIFLORUS*. Short-flowered. (Bot. Reg. 1946.) Scrophularinæ, Didynamia; Angriospermia. A native of California, from whence it was sent to this country by the late Mr. Douglas. It is a hardy perennial, of delicate habit. It produces a profusion of flowers which are small, of an orange red outside before expanding, afterwards of a white and purple

colour. Though not as showy as many of this tribe, yet it is an interesting and pretty plant.

19. *TRICHOCENTRUM FUSCUM*. Brown-flowered. (Bot. Reg. 1951.) Orchideæ. Gynandria; Monandria. Introduced into this country by Mr. Knight from Mexico, with whom it has bloomed in July last year: the flowers are small but pretty; green, white, red, and yellow intermixed. Neat and pretty.

REVIEW.

The science of Botany by Hugo Reid, 24mo. pp. 103. John Reed Glasgow, 1837. Contents, 1st, What is a plant. 2nd, Cells and tubes. 3rd, The root. 4th, The stem. 5th, Leaves. 6th, Appendages. 7th, Nutrition. 8th, The flower. 9th, The fruit and seed. 10th, Propagation of plants. 11. Linnæan method of arranging plants. 12 Natural system for classifying plants. This small and neat publication on the interesting science of Botany contains *multum in parva*. We think it well worth procuring—An extract will shew the nature of the work.

"THE STEM.—The stem is an organ possessed by most plants. It grows upwards from the root, gives support to the leaves, the flowers, and the fruit, and transmits to them the nutritious fluids absorbed in the earth.

"With respect to structure, stems may be divided into three great classes which correspond with the three natural classes into which vegetables are divided,—Cellular, Endogenous, and Exogenous Stems.

"CELLULAR STEMS.—These consist of a homogeneous mass of cellular vegetable matter, covered by a thin cuticle. Some of them are apparently of a fibrous texture, but are composed of elongated cells placed parallel to one another. Mushrooms (*Fungi*), Lichens, Sea-weeds, the lower orders of plants, make up this class, the leading character of which is to consist of cellular tissue alone. The Ferns, and one or two others, have certain kinds of vascular tissue, but resembling this class in other respects, have generally been included in it. Plants of this kind are *Flowerless* or *Cryptogamic* and are termed *Acrogenous*, growing only by addition at their external points."

"ENDOGENOUS STEMS.—These consist of bundles of vessels irregularly dispersed through cellular tissue. The Sugar-cane, Solomon's Seal, the Lily, the Palm, and the Iris, have this kind of structure, the cellular cultivascular tissues being blended together through the entire substance of the stem.

"Stems of this kind are called *Endogenous*, because the new matter by which they increase in diameter is added interiorly. Their growth is carried on by means of the thick cluster of leaves by which they are terminated superiorly. From them the new matter descends along the centre of the stem, and pushes outwards the parts first formed. The upper parts of the leaves perish having performed their functions: their bases remain, are pressed together, and form at the top the new external part of the stem. In the middle of the crown of leaves is the terminal bud, which is next to be developed, rise a little above the former, become a cluster of leaves, and in its turn be pushed outwards by a succeeding central bud.

"The oldest and hardest part of such stems is that nearest to the circumference. The more the external parts are pressed by the descent of the new matter, the more close and compact they become, the outer parts being soon incapable of being much farther pushed out, and the whole being thus compressed and condensed. The prickly Pole-palm is like whalebone externally, and some palms are so hard there as to resist the stroke of the axe—yet quite soft in the centre.

"From the mode of growth in this stem it never can attain a great thickness, the new matter having to force outwards all the previously formed matter, which is every season increasing in quantity and becoming harder.

"From the same cause they have no lateral buds—no branches. Buds (which produce branches) originate from the soft and juicy parts of the tree—but in endogenous trees this is surrounded by a thick hard compact casing through which the buds cannot penetrate. Their only branches are, the splendid crown of leaves which proceeds from their one bud at the summit.

"Hence the peculiar form of the palm trees, which present so striking a feature in the scenery of tropical climes, and form such a contrast with the trees in more temperate latitudes; raising a narrow unbranched stem often to a height of about 150 feet, crowned by a magnificent cluster of leaves many feet in length bending elegantly outwards, and presenting altogether one of the most graceful objects which can adorn a landscape. From their great height, which renders them tottering, and their manner of growth, which causes them in time to become hard and compressed, even in the centre, so that they cannot transmit juices from the root, or new wood from the leaves—the age of Palms is limited—perhaps not exceeding two or three centuries at the utmost.

"Plants with endogenous stems have only one cotyledon (lobe) in the seed (hence called monocotyledonous,) and have leaves with veins proceeding in simple lines from the base to the summit, not forming a net-work as in the leaves of the Lime tree, Cabbage, Primrose, &c. Contrast, in this respect, the plants just mentioned with the grasses, onion or lilly tribe.

"EXOGENOUS STEMS.—The third class of stems consists of those in which are observed concentric layers of vascular tissue, arranged symmetrically round a central column of cellular tissue, intersected by rays of cellular tissue proceeding from the centre towards the circumference, and enclosed by a hollow cylinder of bark.

"*The Epidermis or Cuticle.*—The epidermis is a thin membrane, resembling much the cuticle of animals, and extending over the whole plant. It is described as consisting of a layer of fine membrane provided with pores, and covering a sort of cellular net-work. These pores open by an oval aperture, surrounded by a small prominence (which is supposed to open or shut the aperture as circumstances may require,) into the cellular net-work, in which the vessels terminate. On the leaf the cuticle is a very important organ.

"These pores or stomata give free passage to moisture. They are found only on parts exposed to the air, and which evaporate freely. Roots, fleshy, fruits, and seeds, and those parts of aquatic plants which are submersed, are destitute of stomata.

"The cuticle is supposed to protect the parts underneath from the too direct action of air and water, to prevent too great evaporation of the fluids. It affords little protection from heat or cold, except when covered by a thick hair or wool as in the Great Mullein. On the trunks of the Fir, the Plane, the Oak, and other trees, the office of the cuticle seems to be performed by dead layers of bark, or of herbaceous integument, which are pushed outwards, having performed the functions for which they were made.

"In forest trees and in the larger shrubs, the bodies of which are firm and of strong texture it is of little importance except in the young and tender state of the plant; but in the reeds, the grasses, canes, and the plants having hollow stalks, it is of great use, and is exceedingly strong; and by the microscope, seems to be composed of a grassy net-work, which is principally siliceous earth. This is the case in the Wheat in the Oat, in different species of Equisetum, and above all in the Rattan, the epidermis of which contains a sufficient quantity of flint to give light when struck by steel. The siliceous epidermis serves as a support, protects the bark from the action of insects, and seems to perform a part in the economy of these feeble vegetable tribes, similar to that performed in the animal kingdom by the sell of the crustaceous insects. I have ascertained, by experiment, that siliceous earth generally exists in the epidermis of the hollow plants.

To be Continued.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON BOW'S SUWARROW PINK.—Could you or any of your pink growing friends inform me the best method of growing Bow's Suwarrow Pink in order to avoid disease, I selected it from different collections last year, and I have lost them all again; I may here remark that I have grown it in rich and poor soil, but I cannot keep it more than one year. J. F.

ON CANADIAN POPLAR AND DOLICHOS.—Can you or any of your correspondents, kindly inform me of the proper method and season for propagating the Canadian poplar, or what I consider such; a tall branching tree, having leaves, larger than a man's hand, and which produces no suckers.

Also how to produce flowers on a Dolichos (of which I am ignorant of the specific name,) the flowers are pink, and about the size of anthyllis vulneraria, (lady's finger) which I raised from seed five or six years ago, and have kept in a pot. Does it require a rich soil, and will it bear to have the earth much shaken from the roots in repotting? F. S.

ON THE CULTIVATION OF THE GENUS PASSIFLORA.—I shall be much obliged if you or any of your correspondents can inform me of the best method of cultivating the genus Passiflora in their several departments, in order to ensure an early bloom from young plants, and also as regards their subsequent management. A CONSTANT READER.

ON THE FLOWERS OF THE CAMILLIA FALLING OFF BEFORE EXPANDING.—Having a number of plants which often going through the regular process generally recommended, such as potting, introducing into heat to moisten and to mature their buds, afterwards being set in a shady situation out of doors during the summer and autumn; when taken into the greenhouse, the buds keep frequently dropping off, so that at the time of flowering, instead of having several dozen blooms upon a plant, I am disappointed in not having more than one dozen, and in some cases, not one flower.—To be informed through the medium of the Cabinet in what part of the process I am deficient will greatly oblige an AMATEUR.

ON WISTERIA SINENSIS.—Having several plants of the Wisteria Sinensis planted in different situations in my garden which grow vigorously but do not blossom, I shall be glad to be informed through the pages of the Cabinet, by you or any of your correspondents of a successful method to make them bloom.—I shall very likely favour you with answers to these queries myself. A SUBSCRIBER.

ANSWERS.

ON DOUBLE FLOWERING CLARKIA.—Through you in answer to Mr. King of Black Heath, relative to the ANNUAL, Double flowering Rose coloured Clarkia which he notices in my advertisement in the Cabinet, I presume, more than Mr. K. having heard of it before I advertised it, though I have had it these last two years, it was imported and flowered at the Nursery of Messrs Rivers last summer, where it was very much, and in my humble opinion, justly admired, for being greatly superior to any of the other varieties in point of colour. The majority of plants, having had flowers, that were strictly speaking, double.

Being satisfied that even those that came single, were more beautiful than

the old varieties, I put "fine" after it in the Cabinet, which I would not have done for the sake of sale in preference to give an opinion on any thing which experience would not afterwards fully verify. As Mr. King anticipates it will be a very great acquisition to the flower garden; should Mr. King or any other of your readers require further information, I would refer them to Messrs. Rivers of Sawbridgeworth, who I think would give a better description of it, than your obedient servant,

J. KERNAN.

4, Great Russell Street, Covent Garden, London.

A LIST OF SUPERB GERANIUMS.—Thinking that a list of the best Geraniums might be useful to some of your readers, I herewith send you the annexed list of thirty of the best kinds that were let out last year.

Bella Donna	Miss Sophia
Bellissima	Miss Annesley
Coriolanus	Nosegay
Commemoration	Perfection
Constance	Pulcherrimum Novum
Curate	Queen Bess
Diomedes	Queen of Beauties
Emperor of the West	Queen of Pixies
General Washington	Rosinant
Indian Chief	Roxana
Lady Denbigh	Sir John Broughton
Lavingtoniensis	Speculum Mundi
Lord Hill	Squaw
Maid of Athens	The Gem
Miranda	The Wonder

The above may be purchased of any nurseryman either in town or country 5s to 21s. They are really good and might have an extensive cultivation.

March, 11th 1837.

A LOVER OF FLOWERS.

REMARKS.

ON ROSES, PINKS, &c.

Whenever Roses or any other shrubs are infested with blights, take sulphur and tobacco dust in equal proportions, and strew it over the trees in the morning, when the dew is on; and when the insects disappear then wash the tree with a decoction of Elder leaves.

Whenever you want to raise any plants from cuttings (except those that are perfectly hardy, let there be a mixture of drift sand in the mould, as this will assist their striking, always remembering that a hand-glass put over them will be more likely to ensure success. They should be shaded from the mid-day sun, but the mat should be removed when the sun is off, as they should have plenty of light.

To draw off any imperfect spots in Pinks or Carnations, put a small glass on the flower-stick which will remove them in a few days.

Before you plant Ranunculuses, the roots should be laid on a damp flannel to swell; and shake over the bulbs a little dry sand, before they are covered with the mould.

If Greenhouse plants, are in a room, and the weather is very severe, set a pail of water near them at night, or burning two or three rush lights will often preserve them from frost.

Double Colchicums and Crocuses should remain in the ground two years.

Old Pink roots best to save seed from.

To drive away rats, use sulphur steeped in water; and if they or worms infest gravel walks, strew the walks over with salt, and then water them.

To DESTROY SNAILS.—Place tiles about the garden in a hollow direction.

They will get under them in the night, and in the morning you may destroy them.

Remove Rose Trees in February, to make them blow late ; or cut some of the buds off, which will answer the same purpose.

To preserve the choice bulbs, cover them over, in severe weather, with old tan, or coal ashes.

When flowers are withering in a flower-pot, plunge about one-third of the stems into boiling water, and by the time the water is cold they will revive ; then cut off the ends and put them into cold water with a little nitre, and they will keep fresh for several days.

Sow all seeds shallow ; and if they are small, such as Poppies, Venus' looking-glass, &c. they should be sown very thin, or the plants will not thrive.

Hoe and sow in the dry, and plant in the wet ; this will generally ensure the crop, and what is planted out will be much more likely to grow.

Shrubs and Flowers should never be planted deep, as they will not thrive so well.

Never put plants in too large pots, as they generally run to roots and stalks, but seldom blow well.

It is a good method to put oyster-shells round the plants in pots in the summer, as they will not require so much water, and will keep the surface cool.

No Plants (but especially tender ones) should be watered when the sun is upon them, as it often turns the leaves yellow, and injures the plants.

Water in the evening from the latter end of May to the latter end of August, and afterwards in the morning, as we often have frosts the beginning of September.

In the winter plunge pots up to the rim in tan or ashes to preserve the plants from the frosts.

Hardy Greenhouse Plants should be kept chiefly in the shade during the summer months, but never under the droppings of trees. Air is of consequence to all plants, so that they should be placed where they can have plenty of it, though not so exposed as to be injured by high winds.

If you wish for Roses at Christmas, select from your Rose Trees such buds as are just ready to blow ; tie a piece of thread round the stalk of each. You must take care not to touch the bud with your hand, or even the stalk any more than you can avoid. Cut it carefully from the tree, with the stalk two or three inches in length. Melt some sealing-wax, and quickly apply it to the end of the stalk. The wax should be only as warm as to be ductile. Form a piece of paper into a cone-like shape, wherein place the Rose ; screw it up carefully, so as to exclude the air from it ; do so by each ; then put them all into a box, and the box into a drawer, all of which is intended to keep them from the air. On Christmas day, or any other day in winter take them out, and cut off the ends of the stalks, place them in a flower-pot with lukewarm water. In two or three hours they will blow as in summer, retaining all their grateful fragrance.

Whenever you want to transplant any Flower Roots in the summer season, make it a rule to do it in the cool of the evening, and give them all a little water ; if this plan is not adopted, the sun will spoil them.

To destroy Earwigs, place the bowls of tobacco pipes on the tops of the flower-sticks, and you will find them in the morning in the bowl ; turn them into a basin of water, and put the bowls on the sticks again.

A SUBSTITUTE FOR BOG EARTH.—Take a quantity of earth from a common about a foot deep with the turf ; mix this with rotten dung, part horse and part cow, with a portion of mould from a hollow tree, and a portion of drift sand ; let these materials be well mixed together, and lay for several months before it is used, turning it once a week or a fortnight.

The best soil for Carnations and Pinks is a large proportion of good rich loam, mixed well with an old melon bed, a little cow dung, and a small portion of drift sand.

Extracted from an useful Treatise on Flowers recently published by J. Willatts, Esq. (see review in Cabinet, for 1836.)

THE FLORICULTURAL CABINET,

JUNE 1ST, 1837.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON THE TREATMENT OF ORCHIDEOUS PLANTS,

BY EPIPHYTES.

I AM glad the subject of the culture of Orchideous Epiphytes has been again taken up in your Magazine, and being much pleased with the communication of "A Three Year's Practitioner," I hope he will take the trouble to enter into a little more detail. In the first place I would ask, does he consider that his plants suffered in the winter when in the vinery, on account of their distance from the glass, or was it not rather in consequence of the dry heat of the flue? It would be well if he would describe somewhat more at length the construction of the house he purposely erected for their reception, as to its height in front and back, and also at the ridge, and whether it stands east or west with a few particulars as to the size of pipes, boiler, and the total area of the heating surface, as a guide to those wishing to erect similar structures. Are we to understand that the pots of plants are only placed upon, and not placed amongst the moss, and that the soil in the pots is not watered, but left to imbibe moisture from it? From the latter part of the paper one would infer that bottom heat was of great advantage in the successful cultivation of these plants, and I should be glad to have your correspondent's thoughts on the subject and whether or not any particular species do better on the ribbed trellis, where, unless moisture is supplied by the pipes being open, they must be exposed to an

ascending current of dry hot air. An account of the mode of ventilation would be acceptable, and as the degree of moisture is a most essential point with the *Ochideæ*, any data furnished from observations, made both during the seasons of growth and repose, with either Leslie's (which is decidedly the best and least troublesome in gardening operations) or Daniel's hygrometer would contribute much to their successful treatment. In using the sphagnum is it mixed with the potsherds, or a layer of it placed in the pot? I should fear that the moss on or in which the pots are placed would greatly encourage those pests the onisci or wood-lice, which make such havock of the tender tips of the young roots, but perhaps some mode of remedying the evil has presented itself to the writer, as he does not allude to it at all. Would not sand or ashes be a good substitute for the moss; and afford less shelter to the onisci? Many other matters relative to the management of these plants will naturally suggest themselves to your correspondent, such as the season of re-potting, and the preparation of the plants for undergoing that operation, and by treating the subject more at length, I doubt not he will greatly oblige many of your readers besides.

EPIPHYTE.

ARTICLE II.

A LIST OF THE BEST NEW SORTS OF FLOWER SEEDS. &c. &c.

BY W. C. R.

It being now about the time for sowing or planting out all kinds of flower seeds, I herewith hand you a list of what in my opinion is the best of the new sorts of flower seeds, should you think it worthy insertion, I have no doubt but it will be of some service to amateur floriculturists and persons who are in the habit of buying all the new kinds of flower seeds. All the kinds I have quoted are real good sorts, and every one who grows flowers ought to have them forthwith (if they have not already got them.) All the sorts can be purchased of any respectable town or country nurseryman at from 6d. to 2s. 6d. per packet. Those sorts to which an asterisk is prefixed are either the newest, the dearest, the scarcest, or the best.

Adlumea scandens
Agrostemma coronaria

Amaranthus giganteus
Asclepias nivca

* <i>Bartonia aurea</i>	* <i>Ipomopsis pecta</i>
<i>Blumenbactia insignis</i>	..... <i>elegans</i>
<i>Calendrina discolor</i>	<i>Jacobæa</i> , new, yellow
* <i>disticha</i>	* double white
<i>Campanula lorei</i>	* <i>Leptesiphon androsaceus</i>
* <i>Catananche bicolor</i>	* <i>densiflorus</i>
<i>Catulla aurea</i>	<i>Malope grandiflora</i>
..... <i>coronopifolia</i>	* new <i>alba</i>
<i>Chelone diffusa</i>	<i>Nemophila insignis</i>
* <i>Clarkia elegans rosca</i>	..... <i>phaceloides</i>
..... <i>grandiflora</i>	..... <i>aurita</i>
<i>Clintonia elegans</i>	<i>Nolana atriplicifolia</i>
<i>Collinsia bicolor</i>	<i>Phacelia tenacetifolia</i>
<i>Coreopsis elegans</i>	* <i>Phlox Drummondii</i>
* <i>bicolor</i>	<i>Platystemon californicum</i>
<i>Collomea coccinea</i>	<i>Podolepis gracillis alba</i>
* <i>Didiscus Cœruleus</i>	* <i>Rhodanthe manglesii</i>
<i>Dianthus atrorubens</i>	<i>Sanvitalia procumbens</i>
<i>Dolichos purpureus</i>	<i>Scabious</i> , new, mottled
* <i>Eutoca viscida</i>	* <i>Schizanthus Grahamii</i>
<i>Fumaria spicata</i>	* <i>priestii</i>
<i>Gilia tricolor</i>	..... <i>pinnata humilis</i>
..... new <i>alba</i>	* <i>vensustus</i>
.... <i>Achillæfolia</i>	<i>Streptocarpus rheaii</i>
* <i>Godetia rubicunda</i>	<i>Thunbergia alata</i>
<i>Heliophila araboides</i>	* <i>Trachymene Cœrulea</i>
<i>Humeca elegans</i>	<i>Tropæolum tricolor</i>
<i>Humemania fumarifolia</i>	..... <i>shillinghi</i>
<i>Isotoma acillaris</i>	<i>Wallflower</i> , new, French striped
<i>Iberis coronaria</i>	<i>Zoegea leptaurca</i>

Some of the sorts as named above are not very new nor are they very old, but they are all considered first rate sorts. There are also a great many new varieties of some of the older flowers, such as *Clarkia*, *Anagallis*, German Aster, Russian Stocks, *Campanula*, *Centaurea*, *Delphinium*, *Franchœa*, *Lobelia*, *Lupinus*, *Nierembergia*, *Penstemon*, *Potentilla*, *Salpiglossus*, *Zimia*, &c. &c. which every amateur which has a good garden ought to have.

April 22d 1837.

W. C. R.

ARTICLE III.

ON A CHEAP AND USEFUL METHOD OF FUMIGATING PLANT-HOUSES. &c.

BY A YOUNG AMATEUR.

I beg to offer a few remarks on a cheap and useful method of fumigating houses, which I think will prove acceptable to some

of your readers. Some short time ago I was troubled very much with the green fly in my Geranium house, tobacco smoke being a very good thing to destroy them, I was at a loss how to use it, not having any fumigating bellows. However, in a few days, in lieu of this, I hit upon a successful method. I got a flower pot about three inches in diameter, and made a hole in the side of it about an inch from the bottom of the pot. I then filled the bottom of the pot with red hot cinders, upon which I put the tobacco, which of course lighted. To the hole in the side of the pot I applied the nose of a common pair of bellows, which caused the tobacco to burn equally as well, if not better, than with the fumigating bellows. In order to get a good volume of smoke, I make the tobacco quite damp, which the red hot cinders are sure to set on fire. The above experiments I have tried and found to answer exceedingly well.

ARTICLE IV.

ON PROPAGATING THE CAPE HEATHS (ERICAS) FROM SEEDS

BY A FOREMAN OF A LONDON NURSERY.

I AM glad to observe that this very highly interesting genus of plants is again becoming extensively cultivated. I think too upon a more successful system of management than was practised a dozen years back. I herewith forward the mode of management I have pursued, with the greatest success.

PROPAGATING ERICAS.—This very interesting and numerous genus is best cultivated in a house dedicated exclusively for themselves; and where such is the case, such house is known by the appellation of heath-house or heathery, and to be complete should contain from about two hundred and fifty to three hundred species, which will afford a considerable share of bloom throughout the year. Heaths are comparatively of late introduction for we find that in Miller's time, few were known, and those only of the hardy kinds: none of the Cape species being at that time introduced. To His late Majesty George the Third we are considerably indebted for the introduction of this charming genus of plants.

That monarch, at his private expence, sent Mr. Mason, a most assiduous collector, two voyages to Africa, for the almost express purpose, and by his exertions, the first collection of

Ericas in this country was formed. The late venerable Mr. James Lee, in company with Mr. Kennedy, of the Hammer-smith nursery, may be looked upon as the first professional characters who embarked in this speculation, and their collection was looked upon as unrivalled in Europe. These were not only the first commercial collections formed, but there also the mode of culture first devised, which has been the means of disseminating them throughout Europe, chiefly under the management and direction of our late ingenious, although unfortunate friend, Cushing. Subsequent collectors have added considerably to this genus; and although last but not least, that indefatigable young botanist, Bowie, who not only visited Africa with a view to discover new species, but also to draw conclusions from their natural habits, to enable us to improve their culture; and from the observations made by him, and freely communicated to us as well as to others, there is no doubt, that had he survived his second journey, this genus, which hitherto has been considered difficult to propagate and cultivate, would have been much improved by his valued observations. A genus so interesting, and we may say, so long fashionable, must necessarily have attracted the attention of home cultivators; and from the profusion of flowers which most of the species produce, and their parts of generation being for the most part so perfect, we need not be surprised at the many hybrides which the care or curiosity of the cultivator has produced. To the valuable exertions of the Hon. and Rev. W. Herbert, we are primarily indebted for many plants of this description; and from his paper on this subject, in the Transactions of the Horticultural Society, we are led to infer, that this promiscuous impregnation goes on to a considerable extent at the Cape, where millions of them must be in flower at the same time.

Heaths, like most other plants, propagate themselves from seed, although most of them cultivated in this country have hitherto been originated from cuttings; few from layers, and so far as we know, none have been propagated by grafting, or similar processes. A considerable portion of them ripen their seeds with us, and there are annual importations of seeds from the Cape. Those seeds ripened in this country vegetate most readily; whilst those imported are often too old, or sometimes injured, before they reach us. As those imported generally reach us in winter, they should be sown early in spring; indeed some

cultivators advise their being sown immediately after their arrival; but we have hitherto found, that if sown too soon, that is, in February or the beginning of March that they do not vegetate so quickly, and, in consequence, many of the seeds are rotted: for it is a maxim that should never be lost sight of in the culture of this tribe, which is, that artificial heat should never be employed, excepting in some cases of slow growing kinds, that may require a slight heat to draw the young shoots out to a sufficient length for the purpose of cutting; but even in this case, they seldom they are so excited, the better.

Artificial heat, therefore, is injurious to the process of originating heaths from seeds; we, therefore, in our own practice, as well as from observation of that of others, prefer the latter end of March or beginning of April for sowing these seeds; the natural warmth of the season then is sufficient to stimulate vegetation, and the young tender plants so originated have not the chance of being destroyed by damp cloudy weather, which we often experience in spring, and which would be of the utmost injury to them in their young state. Where extensive collections of plants are kept up, and in all large nurseries, there is generally a seed-house, that is, one expressly dedicated for the rearing of plants from seeds; such houses are generally low, having a northern aspect, as is the case in the Hammersmith and other nurseries.

Cultivators, who have but few seeds requiring such a structure, content themselves, therefore, with a good garden frame and glasses; and as such is portable, it can be placed where it is either shaded from the meridian sun, or great care taken in shading it artificially. The situation of such a frame should be both dry and airy, for damp would be extremely injurious to the young plants. Pots should be prepared for the seeds, of ordinary sizes, but those known as seed-pots are to be preferred; they are broad and shallow, which admits of a considerable surface for the seed to be sown on, and of being rendered perfectly dry at bottom. Great care should be taken in draining them, for although the surface will require to be kept pretty moist, still no impediment must be left whereby the superabundant moisture would be prevented from passing freely off. The directions given for draining cutting-pots will be, if acted upon, sufficient for this purpose. The mould upon which the seeds of heaths are sown, should be of the sort called peat-earth, having naturally a con-

siderable portion of fine white shining sand in it, or, if deficient in this material, it should be added to it by the cultivator.

As the seeds are very small, the mould for this purpose, to the thickness of an inch and a half, should be sifted very fine, and the surface of the mould in the pot rendered smooth and level with a small circular piece of wood, say of three inches diameter, having a nail driven into the centre of its upper surface, by which the operator can use it to much greater advantage. Upon the surface so prepared, the seeds should be thinly sown regularly all over it, and covered with the same kind of mould to the thickness of one-eighth of an inch, more or less, according to the size of the seeds, as some are larger than others. The pots so sown should be then placed upon the platform in the seed-house, or upon a floor (if in frames) of finely-sifted coal-ashes, and after being gently watered with a very fine rose watering-pot, be shaded from the sun. This shading must be continued constantly on during sun-shine, until the plants be from half an inch to an inch high; afterwards it must be gradually removed to harden them by degrees, to fit them for potting off into separate pots. Some cultivators place bell or hand-glasses over the seed-pots when sown, and when such can be spared, they may be with some propriety used. For five or six weeks, the surface of the mould must never be allowed to become dry, but be daily examined, at the end of which time, the seeds may be expected to have vegetated. When such is the case, the bell or hand-glasses should be gradually removed, first by being lifted up about a quarter of an inch, and in increasing this air, until entirely removed. Some seeds of course do not vegetate so soon as others, therefore the pots should be still carefully attended to; but if after three months, or little more, all hope of their vegetating may be given up. Plants, so originated, will be about the middle or end of September in a fit state to plant out into thumb or thimble pots, as they are called, and which are the smallest sizes that are made.

Heaths which ripen their seeds in this country, should be sown as soon as they are ripe, provided this does not occur after the first of September; such as ripen afterwards (and several do so) had better be kept packed up in paper till the following April, when they may be sown as above directed. Plants originated at this time will be sufficiently strong by autumn to pot off; and it is even better then to pot off such as are very small, than allow

them to stand in the seed-pots all winter. It is perhaps not easily accounted for, but plants stand the winter better when potted off in autumn in single pots, than if they were to remain in the seed or cutting-pots all winter; and the same rule holds good in regard to potting off cuttings propagated at any period of the year when quite young, that is, immediately after they have commenced making roots. This is not perhaps generally known, at least it is not always acted upon, as many persons, from an idea that the plants will become strong and better rooted, defer too long the process of potting off, and, in consequence, lose both time and many of their plants. It may, perhaps, not be quite out of place here to observe, that such seedlings or cuttings as have originated in the fine white sand of cultivators, should have their roots completely cleared of it before they are potted in their natural mould; for although most plants emit roots in that sand, it becomes injurious to many of them after they quit their cutting or seed state. Directions for propagating by cuttings have been already amply detailed, to render a recurrence to that process here unnecessary.

We may here however remark, that this family are less annoyed by insects than most other exotic plants, still they are not entirely exempt; for that destroying insect, the green fly of gardeners, sometimes attacks the heath, and as it is found impatient of the usual remedy, tobacco smoke, the best cultivators dip the plant, or parts infected, in a decoction of tobacco liquor. Mildew sometimes attacks the heath; but this, like the cause of its appearance in all other cases, must be owing to damp or stagnation of air. To remedy this evil, has not always been found an easy task; indeed, we recollect, about two years ago, to have seen nearly the whole collection of this family in the nursery of a cultivator, who is allowed to be one of the best in the neighbourhood of London, nearly destroyed by it. Free ventilation and a dry atmosphere seem the basis of a certain cure, and the application of flour of sulphur dusted on the plants, or put on them in form of paste, may be considered as effectual in removing the evil.

ARTICLE V.

ON THE CULTURE OF THE CAMELLIA.

BY CLERICUS.

THE Camellia, is justly esteemed one of the finest, if not actually the finest, of our exotics, and indeed, there are few of the beautiful denizens of the greenhouse and conservatory, that can lay equal claim to our attention. Unlike most of its compeers, this lovely genus, at all seasons, whether it be in blossom or not, excites our admiration. During the summer and early winter months, we are pleased with its bold and elegant form, and with the deep glossy hue of its beautiful foliage; whilst from Christmas to May, the various varieties delight and charm by their fine and showy flowers, of white, buff, striped, and red, of every shade, from the deep crimson to the soft tint of the maiden's blush. The Camellia may in truth be called, "the most beautiful of the beautiful," for what, in the whole range of our exotic flora, is more beautiful than a fine specimen of the Old Double White, having, perhaps, one or two dozens of splendid blossoms fully expanded? or what more delicate than the bloom of *C. sasánqua*, now called *C. maliflora*? The Old Single Red, *C. japonica* appears to have been introduced into England, in the year 1739; and according to Messrs. Chandler and Booth's *Camelliae*, the Old Double White was brought to England in 1792, by Sir John Slater, of the East India House, and the Old Double Red, imported in 1794, by Sir Robert Preston, of Vallyfield; since which time many fine varieties have been imported from China, and many fine seedlings have also been raised in this country, within the last few years, more particularly at the Vauxhall Nursery. The names of one hundred and fifty, or one hundred and eighty varieties, might now be collected from the various catalogues of the London nurserymen, but nearly two-thirds are unworthy of notice, and many are mere repetitions of each other.

Stocks, upon which to inarch, graft, or bud, the double sorts, are obtained from cuttings of the Single Red: the cuttings may be taken at any period, after the wood of the present year is ripe. They should be planted in pots of fine white sand, about forty or fifty cuttings to a pot of eight inches in diameter; the pots should be well drained, being nearly half filled with pieces of broken pot. Two or three leaves should be left upon each cutting, at

least, no more must be removed than is absolutely necessary to allow of the cuttings being firmly fixed in the sand. After the pots are filled they should be placed in a shady part of the greenhouse for five or six weeks, and then, if convenient, they should be plunged in a gentle hotbed;—a bark bed will do, but not quite so well. By their, thus, having bottom heat, they will strike root in one half the time they would do, if left in the house. As soon as rooted they should be potted off into small pots, and afterwards kept, if possible, in a hotbed or hothouse, where they will make fine strong wood, and be fit for use in fifteen or eighteen months.

Inarching, or grafting by approach, is generally resorted to for the propagation of the Double Camellias, and not unfrequently, grafting or budding. The former is by far the safest, and may be performed during the summer and autumn, after the ripening of the wood, or early in spring, before the plants begin to grow. The scions may be cut from the parent plants in about eight weeks. There is no necessity to use clay in the operation of inarching, but if independent grafting be resorted to, clay must be used, and the wood must be quite ripe. The method called side-grafting is usually followed, but the tongue, if any, must be very small; in inarching, care must be taken not to cut the stock or scion too deep. The grafted and budded plants, as soon as the operations of insertion and claying are finished, should be kept under a hand-glass in the greenhouse, or in a cold frame, until the scion or bud has grown for the first time, and not till then, can the heads of the stocks be cut off, without great risk of failure, because an exuberance of sap is thus thrown into the scions or buds, before they are established to receive it without injury,—just as too great a supply of nutriment injures the infant of the human race. Nor should the ligatures or clay be removed before that time, (these and the foregoing remarks are also applicable to the young inarched plants) after which, all the plants should have their tops nipped off, to two or three buds, or they may be removed by inarching or grafting them, if it be wished to increase the stock of the variety; but unless one of these precautions be followed, the plants will very probably run up with a single stem, and instead of being bushy and pyramidal, will be loose and rambling, and must eventually be cut down. The young plants after being thus decapitated, should be treated if possible, in the same manner as recommended above for the young stocks, viz. to be

kept in a gentle hotbed, or kept in a cool part of the hothouse, they will soon become fine plants; but if any are still inclined to be of a straggling growth, their side-shoots should be shortened. No plant bears the knife better than the Camellia; and here I would recommend to those of your readers who have large and ugly grown plants, to prune them freely, repot them, and then place them in a little heat of some kind; and however old the wood may be which is left, it will soon be covered with young shoots.

The general management of the Camellia, is simple and easy; the chief points are to protect it from the scorching sun, and to prevent its roots from matting round the sides of the pot. Should it be exposed during the spring and summer, to the influence of the sun, the deep dark green of its foliage soon fades, and is followed by a sickly yellow hue, therefore I would recommend, that from the beginning of April to the middle of September, the plants should be wholly shaded from the sun, or at least, exposed only to the early morning sun;—if this recommendation be once followed, it will never afterwards be neglected. However, in recommending that the Camellia should be protected from the sun, I do not advise that it should be deprived of light; yet it is worthy of remark, that even during the winter months, this plant will thrive in the darkest parts of the greenhouse and conservatory, where most others would soon be destroyed. Except, during the growing season, when a liberal supply of water should be given, the Camellia requires to be kept rather dry; but if the roots are allowed to become matted, the water will run down the sides of the pot, and escape at the hole at the bottom, without penetrating the ball of the earth, the roots will be impoverished, and will not imbibe a sufficiency of moisture for the support of the plant, and the first symptoms of this will be the sudden dropping of the leaves and buds, although they appear green and healthy: the death of the patient soon follows, unless the remedy be instantly applied by pruning, repotting, and the application of artificial heat.

Some cultivators grow the Camellia chiefly in peat. Messrs. Loddiges who have the most numerous collection of the genus, formerly used loam with a little sand and peat, and they are grown in similar soil, in the Hammersmith nursery. Of late Messrs. Loddiges, find light loam alone, to answer as well, if not better. In some establishments, rotten dung is mixed with loam

and peat. Sweet, recommends sandy loam and peat. Henderson of Woodhall, is one of the most successful growers of the Camellia in Scotland; his compost is as follows,—“take one part of light brown mould; one part of river sand, and one half part of rotten leaves; mix them well together.”—(London’s “Encyclopædia of Plants,” London 1829.) For my own part I agree with Mr. Sweet, and use about one-third peat, and two-thirds sandy loam. The peat and loam should be turfy, and ought not to be sifted, but chopped together with a spade, and should be rather coarse and lumpy; this will secure a free circulation to the water, and prevent, in some measure, the mischief arising from the matting of the roots. Mr. Sweet, has justly observed, when the mould is sifted, it often bakes as hard as a brick, so that it is impossible for the roots to get through it.

The best time for shifting the Camellia, is during the month of February and the beginning of March; and if it be advisable not to give the plant a larger pot, it should, however, be turned out, and a little of the earth taken from the top, bottom, and sides of the ball, then returned, and the pot filled with a little fresh compost, having first put some broken pot at the bottom. The earth must be removed gently from the ball, with the fingers, not a root taken away, unless it be dead: no cutting and parting the ball with the pruning-knife. In potting, they must always be well drained. A top-dressing, would be of much benefit to the plants, if given at the time of fixing them in their domicils for the winter. The surface should be stirred with some instrument that will not injure the roots, this will keep the earth light, and prevent the moss from collecting.

A little artificial heat, during the growing season, would make the plants push strong and fine shoots; and if they are again put into a little heat in the month of November, it will greatly forward the blossoms, and they will expand finer and better than they might otherwise do; but in no case should the plants be kept in heat, during the flowering season: if so, the flowers will much sooner drop than they would do in the temperature of the greenhouse or conservatory, in which they would continue in full beauty for a considerable time.

The Camellia, like the Orange, but in a much less degree is subject to the scaly bug; the only effectual remedy, is to pick them off one by one with the nail, and rub the parts affected with a little soft soap. The green fly will sometimes attack the young

green wood ; here immediate smoking with tobacco, is the remedy. By frequently syringing the leaves during the summer and washing them with a sponge, two or three times during the winter, the health of the plants will be improved, the attacks of the insects prevented, and the beauty of the foliage shown to more advantage.

I have now, Gentlemen, laid before you the results of my experience in the cultivation of this beautiful genus ; and at the risk of being considered tedious, I have been rather minute ; but in a communication of this kind, elegance and conciseness, should give way to simplicity and clearness of detail.

CLERICUS.

ARTICLE VI.

ON THE PROPAGATION OF BALSAMS BY CUTTINGS.

BY AN AMATEUR GARDENER,

In the month of April, 1831, I received a packet of seeds of the Balsam, from a scientific friend, whose son had produced them in the preceding year, at Madras, and forwarded to his father. the seeds were, to all appearance, most perfect in their texture, and state of maturation ; and I believe, that of all I sowed, scarcely one failed to produce a lively and healthy plant. I sowed the seeds in a pot of light sandy earth ; I plunged this pot in the earth of a meloury, which was a glazed pit, containing a bed of leaves, chiefly oak and beech. The pit was constructed, on three of its sides, of nine-inch brick work ; the fourth, that to the south west, having a glazed sloping light. The bottom heat of the leaves, might be about 80 degrees : but as a stratum of melon earth, full fourteen inches thick, was placed on the leaves, the heat at the bottom of the pot scarcely exceeded 64 degrees.

The young plants rose, were potted out, re-potted, kept near the glass, and finally, kept in the open air, according to the customary routine ; still however they evinced (with one exception only) not the slightest indication of producing blossom, although some had attained the height of three feet or more. At the close of the month of August I became impatient, and as I felt interested in the final result of my exertions, I determined to try how far I might be successful, in an endeavour to extend the period of the growth of my plants into a second year, by attempting to pro-

pagate them by cuttings. My direct object was, as it is stated, to convert one of the members of the plant into a perfect vegetable body, possessed of roots, and capable, under auspicious circumstances, of exerting its various vital functions throughout the winter, and finally, as I hoped, of producing perfect flowers and seeds in the ensuing spring. On referring to my diary, I find, that on the 28th of August 1831, one cutting was placed under a glass, such as a tumbler, or small bell-glass. This cutting was about three inches long; it was taken off at the axilla of a leaf, that is, at the angle formed between the foot-stalk of the leaf and the main, or other principal stem of the plant. The soil in the pot was composed of very light sandy loam and peat earth, and the pot was immersed in the mould of the melonry. This cutting evinced certain signs of the formation of perfect roots; on the 12th of September and on the 18th, four other cuttings were placed in a similar situation; all of them succeeded, and each became covered with blossoms, though it was scarcely four inches in height. On the 12th October the cutting, of August 28th, was eleven inches high; the stem was somewhat slender, and drawn up, owing to the absence of sunlight, but it was furnished with nine perfect semi-double flowers, the ground colour of which was a pale French-white, and this was beautifully striped with a deep pinkish scarlet. When I witnessed the unexpected result of my experiment, I communicated it in a paper addressed to the Horticultural Society, without delay.

It remains only to remark, that balsams may be forced into flower at the close of the autumn:—that the cuttings of the young shoots at the axillæ, or angles of the leaves, of the length of two, three, or four inches, will almost invariably produce rooted, flowering plants, provided they be placed singly, an inch deep, in small pots of rich light earth, and then plunged in a very gentle bottom heat, under glass. These are horticultural facts, which I believe to be decidedly established; and I also consider, that in all probability such plants, if every flower-bud be timely removed, can be preserved during the winter, in a dry stove, or well-aired and warm greenhouse. I am not, however, enabled to speak unhesitatingly on the latter particular, because I was not, prepared to afford the required shelter during November, and the early part of December, as my house was in an unfinished state, and the pit in which the young plants were placed, was far too much exposed to early damps and hoar frosts. I have fully succeeded,

however, in securing a succession of other tender herbaceous and annual plants, by cuttings taken off in September or October; among which I may mention particularly, one of the *Coreopsis tinctoria*: this is now as fine and healthy a young plant as I ever beheld. I only wait for a favourable opportunity of prosecuting my enquiries, in order to furnish that information which may enable other horticulturalists to extend their researches, which, if pursued with patience, and in a spirit of true philosophical investigation, may, at no remote period of time, lead to discoveries as interesting to the lovers of science, as they will be gratifying to those, whose chief object it is to add to or extend the beauties of the greenhouse and flower garden.

ARTICLE VI.

ON THE CULTURE OF DIFFERENT SPECIES OF ROSES.

BY AN AMATEUR

IN the many excellent observations, on the cultivation of the rose which have appeared, I have frequently observed that the rules, though most excellent in themselves, as applied to many species of roses, have usually been too general, and have proceeded on the principle of considering most species as requiring the same modes of treatment, while the great difference in the habits, nature, places and manner of growth, seem to me to point out important variations in the soil, situation, and mode of cultivation required by many of the different species. I therefore would state some of the differences and places of growth, in a wild state, of some of the species, and the variations they seem to suggest in the culture. Though plants are greatly altered by culture yet they generally retain a considerable bias to the soil and situation for which, by nature, they are formed; and it is usually within a certain range only, of what I would call, their natural habits, that they are capable of improvement by cultivation.

In taking a cursory view of the difference, which there appears to me, to be among some of the species of roses, I shall, to make myself better understood, separate the genus into five divisions.

In the first division and place *Rosa spinosissima* and its varieties, the *R. lutea*, *sulphurea*, and *cinnamomea* which, from their slender shoots, small and numerous thorns, and fibrous roots

growing very near the surface of the ground, are all, I believe, plants in their wild state growing upon heaths and places where there is but little depth of soil, and are surrounded only by plants of a low stature; they would seem therefore to require, to be planted in an airy situation, and not to need much depth of soil, as in their natural places of growth; they are exposed to the browsing of cattle, and we find them to bear much cutting and shortening of their shoots.

In the second division, I include the numerous varieties of *Rosa*, provinciális, centifolia, gállica and mucósa. The varieties of these species are so numerous, that this division contains the greatest number as well as many of the most beautiful roses; they appear to me to be plants which, judging from their manner of growth, have in their natural situations to contend with high grasses, and other strong growing perennial plants; when overpowered by these, they, as it were, remove by sending out roots near the surface of the ground which, when they reach a more airy spot, throw up suckers, these exhaust the old plant, and form a new one in a better situation; the roots of this division, though less fibrous than those of the first, yet are so much so and grow so near the surface of the ground, as not to require either a strong or deep soil.

The third division consists of *Rosa villósa rubiginósa*, *moschæta álba*, *damascéna*, and *caúma*: the roses of this division have much stronger roots than the others, and strike much deeper into the earth. The place of their growth in their wild state is among large, strong growing shrubs and trees: they therefore require a much stronger and deeper soil, and a less airy situation than the two former divisions, and they do not need, nor bear so much pruning of the shoots.

The fourth division consists of *Rosa arvénsis*, *sempervirens Ráncsiæ*, and *multiflora*. These roses, in their natural state, trail along the ground, or support themselves by bushes growing near them, they therefore do not require a very airy situation.

The fifth division consists of *Rosa semperflórens* and *índica*. The sudden and rapid way in which these roses send forth their shoots immediately on a change of cold to heat, points them out as growing in their wild state on mountains covered with snow a part of the year, and like other natives of such places, with rapidity, taking advantage of an interval of warmth to grow, bloom, and ripen their seed.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. CLEMATIS CÆRULEA,
- Violet Clematis*
- . (Bot. Reg. 1955.)

RANUNCULACEÆ. POLYANDRIA POLYGYNIA.

This plant was what we saw in bloom at the splendid collection of Mr. Lowe of Clapton Nursery, and who informed us that its specific name was *Azurea*, under which name we figured it in the Cabinet for last year. The plant, when in bloom, was exhibited at the Horticultural Society meeting in Regent Street, and a Medal was awarded for it. It is a native of Japan. A free grower, and blooms profusely. It is a hardy climbing plant of great beauty and a valuable acquisition.

Mr. Lowe, has recently received another very distinct species from Belgium, called *bicolor*. *Clematis* from *klema* a tendril, on the leaves.

2. CRATÆGUS COCCINEA,
- Scarlet fruited Hawthorn*
- . [Bot. Reg. 1957]

SYNONYM. *C. MACRANTHA*.

The fruit of this species is above the middle size, and of a very fine blood colour. The plant is found growing common about New York, in America.

3. CYTISUS ÆOLICUS,
- Æolian Cytisus*
- . [Brit. Flow. Gard.]

LEGUMINOSÆ. DIADELPHIA DECANDRIA.

The plant is a native of the Æolian Isles, found by Professor Gussone, in Stromboli. Seeds of it were sent to this country from the Royal Botanic Garden at Naples. It is sufficiently hardy to bear the climate of this country if trained to a wall. The flowers are of a golden yellow colour, very showy. *Cytisus*, derived from *Cythus* one of the Cyclades, where the *Cytisus* of the ancients (*Medicago arborea*) was originally found.

4. ECHEVERIA RACEMOSA,
- Racemed Echeveria*
- . [Bot. Mag.]

The plant is probably a native of Mexico. It flourishes freely in the greenhouse, blooming profusely in the Summer and Autumn Months. The flowers are produced on a raceme which is nearly one foot long; they are of a deep rosy red colour, a little more than half an inch long. There are five other species, natives of Mexico or California, described by Candolle, and Haworth. *Echeveria* from *Echevera*, a Mexican botanical painter.

5. EPIGEA REPENS VAR RUBICUNDA. [Brit. Flow. Gard.]

ERECACEÆ. DECANDRIA MONOGYNIA.

This very pretty variety was raised by Mr. John Milne of the Albion Road Nursery, Stoke Newington. It is a very pretty, dwarf, creeping shrub, producing abundance of rich pink coloured flowers, with white tubes. They are produced in small racemes, each having about five flowers upon it. It deserves a place in every flower garden. *Epigea* from *epi* upon, and *gaia* earth, alluding to the stems on the ground,

6. EUTOCA VISCOSA,
- Charming viscous*
- . [Bot. Mag.]

HYDROPHYLLACEÆ. PENTANDRIA MONOGYNIA.

This lovely plant we have formerly noticed, but avail ourselves of another opportunity of recording our testimony of its merit. We have seen beds of it in beautiful bloom at the end of last summer. Its beautiful and brilliant blue blossoms, reminded us very forcibly of the spring

flowered veronica chæmædrya, which adorns our banks, woods and hedges so profusely with a carpet of fine blue. This new species is a native of California, from whence it was sent by Mr. Douglas. The plants grow about a foot high, producing a terminal raceme of fine blue flowers, each flower being near three quarters of an inch across. It deserves a place in every flower garden. *Eutoca* from *eutocus* fruitful, referring to the number of seeds it produces.

7. GALPHIMIA GLAUCA. *Glaucous leaved.*

[Botanist.

MALPIGHIACEÆ. DECANDRIA TRIGYNIA.

This species has been introduced from South America (Mexico we understand) by the Rev. Mr. Keen, of Leatherhead, Surry. It is an ornamental Greenhouse shrub, requiring a support similar to a dwarf climber. The flowers are of a bright yellow colour, each being about three quarters of an inch across, they are produced in terminal racemes. The plant being of easy culture and blooming freely, renders it a desirable plant for the greenhouse. *Galphimia* an anagram of *Malpighia*, a being added for the termination. So named in compliment to *Malpighia*, an Italian physiologist, &c.

REVIEW.

Continued from p. 117.

"From the same cause, such trees attain a great thickness and live to a great age. The new matter being added externally, has little resistance to overcome (only that of a thin bark, which is easily distended and pushed out) and thus there is hardly any limit to its increase in diameter, while, becoming only more securely fixed as it grows, and the growth going on between the bark and the wood almost independent of the inner parts, there is as little limit to the duration of the tree. In fact, each annual layer of alburnum and bark seems to have an independent existence—hence trees are often found flourishing, though quite decayed and hollow within."

. **HERMACEOUS OR CELLULAR INTEGUMENT.** This is the layer of cellular tissue, which lies immediately under the epidermis, and gives to the leaves and young stems their green colour. It forms the substance of the leaf, and in it the changes effected on the sap by the atmosphere takes place.

"**LIBER, CORTEX, OR BARK.** This is found immediately under the herbaceous integument, and consists of a vascular net-work, the spaces between the vessels being filled up by cellular tissue. The bark presents concentric layers, composed chiefly of woody fibre and cellular tissue; and its tissue is easily distended and torn. There is only one layer in young shoots one year old. A new layer of bark is formed in each succeeding year *within the old one*; and thus, in trees, the bark is made up of as many vascular layers as the tree is years old; the older layers being pushed outwards by the growth of the new layers, becoming a lifeless crust, and being often thrown off. Hence the bark may be called *endogenous*, or growing at its inner surface,

"In the newly formed layers of bark, the sap, which has been modified in the leaves by the action of the air, descends to nourish and promote the growth of the plant; hence many of the valuable properties of plants are found in the bark, as in the oak. The outer bark serves the purpose of protecting the new layers of wood and bark from injury, the old and hardened layers forming an excellent protection from external violence.

"The bark, being the part in which the sap descends to supply the plant, is essential for its increase. If part of the bark be removed from a tree all round, so as to leave the wood bare, the part beneath will not grow, the medium by which the nutritious fluids were conveyed to it having been removed, and the tree will ultimately perish. A graft will not take if its bark be not in contact with that of the tree in which it is inserted; and a branch will not take root when surrounded with earth, if the part be deprived of its bark.

"**THE WOOD.** The wood lies immediately under the bark, and makes the

principal bulk of the trunk and branches. It consists of concentric layers or rather cylinders, composed chiefly of vascular tissue. In young shoots, one year old, there is only one layer, which lies upon the medullary sheath. In each succeeding year there is another layer formed. Hence the age of a stem of this kind may be known by counting the number of concentric vascular cylinders in the wood.

"The external woody layers next the bark are called the *alburnum*, and differ from the internal layers or true wood in being younger, softer, more succulent, and of a lighter colour.

"The true wood or heart wood is formed by the inner layers of the *alburnum*, which gradually acquire a greater degree of hardness: the transition from *alburnum* to true wood is, however, almost imperceptible.

"A new layer of *alburnum* is formed annually next the bark: it is pushed inwards, and becomes more compact by the pressure of each succeeding annual layer, till at last it becomes almost solid, the sides of the vessels and cells being squeezed together: hence the greater hardness of such trees in the centre. Thus the wood in such stems is *exogenous*, or growing at its outer surface.

"**MEDULLARY RAYS.** The fasciculi, or bundles of vessels which compose the cylindrical layers, are separated at different points by masses of cellular tissue, extending from the centre or pith towards the circumference, causing an appearance of alternate rays of vessels and cellular tissue. These are called **MEDULLARY RAYS** (from their radiated appearance), medullary prolongations or insertions, or, *the silver grain*. The medullary rays most probably convey the proper juice (the descending sap) from the bark to the interior of the stem.

"The wood gives passage to the sap from the root to the buds and leaves, and contains many of the secretions of the plant. The sap rises chiefly through the *alburnum* (the vessels of which, being young, soft, and not compressed, are well adapted for the passage of fluids), and is conveyed to the leaves, there to undergo changes which render it fit to promote the growth of the plant. Little is known with respect to the particular function of each part of the wood, excepting the *alburnum*, the latest formed layer of which gives passage upwards to the sap. Thus it would seem that the new layer of *alburnum* is formed for the nourishment of the plant, by conveying the sap to the leaves; and this explains why a serious injury of this part is so fatal. When it is destroyed, its office is very imperfectly performed by an old layer filled with secretions, or hardened, and with the vessels contracted by pressure. But a tree may live and flourish with a large piece of the bark and *alburnum* decayed and removed, if not wanting all round. There is an instance of this in a venerable Hawthorn tree near Edinburgh, in which there is a large and deep scar on one side, patched up with stone and lime.

"**THE PITH OR MEDULLA.** The pith is in the centre of the stem, and is contained in the *medullary sheath* or *canal*, which is composed of vessels, chiefly spiral, disposed in a longitudinal direction. In all plants the pith consists of cellular tissue alone, and is of a light and spongy character. The cells are, in general, very regular, and hexagonal in section: in the young shoots of trees, and in herbaceous plants, these cells are filled with aqueous juices, which disappear as the plant grows older, and then they contain gas alone.

"The pith, it is supposed, nourishes the young wood and the buds during the first year of their existence; and it has been observed that it retains its moisture for a longer period near the terminal bud, and at the parts where branches are given off.

"Such is the structure of the stems of that very large class of plants which constitutes the third division. They are found only in Dicotyledonous plants (plants with two lobes in the seed) as the pea or lupin, and their leaves present in the veins an irregular reticulated appearance. They are called *Exogenous*, because the wood, which is the principal part of them, increases in diameter by the addition of new matter at its external surface. All the trees of this country are *Exogenous*.

To be continued.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE FRITTALARIA.—I shall feel obliged if you will inform me through the medium of the Floricultural Cabinet your treatment of Frittalarias; what soil is best adapted for them? and the proper time for planting, and also the best method for preserving them during the winter

ADOLESCENS.

ON THE FLOWER BUDS OF CAMELLIAS DROPPING OFF, &c.—Will any of the numerous readers of the Floricultural Cabinet inform me the reason of the buds of the Camellia falling off in scales, when they have attained the size of a moderate gooseberry, and an effectual, yet as simple a preventive as possible. I bought a Plant in March (a white variety) with fourteen buds on it, and out of the fourteen, I don't expect more than three or four will expand.

ADOLESCENS.

ANSWERS.

TO PELAGONIUM ON THE DOUBLE ROSE CLARKIA.—The double rose Clarkia is a variety of Clarkia elegans rosea, with beautiful double flowers. This is at present rare, it requires care in marking for seed plants, the flowers of which are quite double; the seed I advertised had been saved from plants so selected, which induced me to put FINE after it, and with similar care for a season or two, this fine annual will become a permanent ornament to our flower gardens. It is in my opinion as superior to Clarkia elegans as Pelargonium Dennis's Perfection is to Pelargonium Quercifolium.

Great Russell Street, Covent Garden London.

J. KERNAN.

ON THE CANADIAN POPLAR, &c.—In your last number, page 118 one of your Correspondents, F. S. inquires the proper method and season for propagating the Canadian Poplar—He may safely do so by layering it in March or April, the layers will be fit to plant out in the following November: it may be done by grafting upon the black Italian Poplar, but not with the same certainty of success, nor are the grafted plants so durable, being subject to be overpowered by the shoots from the same stock, unless kept pruned off. To the same inquirer, I beg to suggest he should repot his Dolichos now if not already done in a light rich soil, shaking only part of the old ball off, place it in an airy situation in the greenhouse, and when it begins to grow freely, often syringe it with clean water, and there is no doubt of its flowering freely.

* On the same page a "Subscriber." inquires the best method of making Wistonia Sinensis bloom, I have a plant, which I think has been planted about four years, that grows very vigorously and blooms very abundantly; (I think you saw and admired it much last year, we saw it a most beautiful specimen EDITOR;) It grows in the open garden, has no protection, and in order to make it bloom I twisted it round the stake about nine feet high. I attribute its free flowering to the check it received by being twisted round the stake, just after the same manner as the Major Convolvulus twists itself round and round any stick within its reach. If the above remarks are

worthy your notice, and you think they will be acceptable to your very numerous readers, I shall feel glad, as I have received pleasure and profit from the pages of your widely circulated work, I feel myself bound to contribute any hint I can.

W. BARRATT.

St. John's Botanic Gardens, Wakefield.

REMARKS.

LONDON HORTICULTURAL SOCIETY AT THE OFFICES REGENT STREET.

Feb. 7th.—PLANTS EXHIBITED. From Mrs. LAWRENCE, *Bilbergia iridifolia*, *Brucea maculata*, *Oncidium carthaginense*, *Pancratium speciosum*, *Phaius grandifolius*.

Mr. GLENNY, *Epacris campanulata alba*, *E impressa*, *E pungens*, *Camellias Poinsettia pulcherrima*, *Veittheima viridiflora*.

SOCIETIES' GARDEN, *Echeveria gibbiflora*, *Eutopia lurida*, *Helleborus odoratus*. A communication was read on the cultivation of Cinnamon in England by Mr. W. Buchan, gardener to Lord Bagot. A Banksian medal was awarded to Mr. Buchan for communicating the paper.

A silver Knightian medal was awarded to Mr. Glenny, for his varieties of *Epacris*'s.

Feb. 21st.—PLANTS EXHIBITED. From the Rev. G. C. RASHLEIGH, *Tropaeolum brachyceras*, Sir G. Taunton, *Lycum aggregatum*.

Mr. GLENNY, *Azalea indica alba*. A pontica odorata. A new white-flowered *Cyclamen*. *Euphorbia splendens*, *Grevillea sulphurea*, *Oncidium bifolium*.

W. BROMLEY, Esq. *Epacris impressa*.

SOCIETIES' GARDEN.—*Azalea indica alba*. A *indica phoenicea*. *Helleborus odoratus*, *oncidium ampliatus*.

A silver Knightian medal was presented to the Rev. G. C. Rashleigh for the *Tropaeolum brachyceras*.

March 7th.—Mr. GLENNY, *Andromeda floribunda*, *Correa pulchello*, *Fuchsia microphylla grandiflora*, *Hovea purpurea*, *Phaius grandifolius*, *Styphelia tubiflora*.

Mrs. LAWRENCE, *Ardisia cremulata*, *Brunfelsia americana*, *E campanulata*, *E impressa*, *Dillwynia juniperina*, *Dendrobium pulchellum*, *Gloxinia caulescens*, *Gesneria Douglasii*, *Grevillea arenaria*, *Ipomea Horsfallii*, *Lechenaultia formosa*.

Mr. GAINES of the Battersea nursery, *Rhododendron Russellianum*.

Messrs. Loddiges, *Dendrobium fimbriatum*. D. Pierardi, D. pulchellum.

Mr. PRATT, gardener to W. Harrison, Esq. a new species of *Calistemon*.

SOCIETIES' GARDEN, *Azalea indica phoenicea*, *Calistachys ovata*, *Euphorbia Myrsinitis*, *Sisyrinchium grandiflorum*.

MEDALS PRESENTED—Silver medal to Messrs. Loddiges, silver Knightian medal to Mrs. Lawrence, for *Ipomea Horsfallii*, one to Mr. Gaines for *Rhododendron Russellianum*, to Mr. Pratt for his new *Calistemon*, to Mr. Glenny for his *Andromeda floribunda*.

HORTICULTURAL SOCIETY OF LONDON.—The exhibition for the year 1837, will take place, Saturday, May 13th, June 10th, and Saturday, July 8th.

All persons, whether Fellows of the Society or not, are at liberty to send subjects for exhibition.

Where it shall be required; the Society will defray all fair and reasonable expenses actually incurred in conveying objects to and from the garden, provided a detailed statement of such expenses is delivered at the fruit room in the garden between three or four o'clock, in the afternoon of the day of

exhibition; the statement to be signed by the exhibitor as a declaration of its correctness.

Every exhibitor will be required to sign a printed assurance, that every article exhibited is *bona fide* his own growth.

No subject for exhibition shall be admitted into the garden after half-past nine o'clock in the morning; and if the owners of any locked-up boxes, or other cases already received, should not be in the exhibition tent at the said hour, such cases or boxes must be excluded from competition for the medals.

All specimens whether of fruit or flowers will remain untouched until after six o'clock, when they will be delivered into the hands of the exhibitors, who are requested not to give away their cut flowers in the tents, as much confusion has occasionally been produced by that practice.

Provision will be made by the Society for placing on the table such specimens as may be furnished by the exhibitors; but as some flowers travel most securely when fixed permanently in boxes, and as many persons prefer their own stands, it has been determined that any exhibitors may use their own boxes or stands, under the following conditions:

No box or stand shall exceed eight inches in height at the back, or eighteen inches in depth from front to back. The lids of all boxes must either be loose, or made to unhinge. No box with a fixed lid will, on any pretence, be allowed to stand upon the tables. If a box not constructed of the dimensions above given is sent in, it may be placed on the tables if there is room for it, but it is liable to exclusion.

JUDGES.

The Council being of opinion that, with reference to the Judges and to the manner of making the award, the regulations which have been adopted for the last two years, are upon the whole, the best that can be devised for securing a good and impartial decision, intend that they shall continue to be exactly observed.

Two sets of Judges are appointed by the Council, and from their decision there is no appeal. One set consists of practical gardeners, distinguished both for their knowledge of their profession, and their high characters as independent unbiassed men; the other set consists of amateurs, all or part of whom may be members of the Council. The first set must, in all cases, constitute the majority of Judges.

The judges have the power of increasing or diminishing the number of medals offered by the Society for particular objects, and also of conferring medals in cases not contemplated by these regulations, if they think it desirable to do so.

The only absolute directions which the judges receive from the Council are, firstly, to bear in mind that the Society's medals are offered, not only for new and curious objects, but for remarkable objects of horticultural skill, the design of the Council in instituting these meetings, being not merely to encourage the collector, but rather to reward the success of the skilful gardener: and secondly, not to make any award in cases where the objects exhibited do not appear worthy of a medal, otherwise a bad single exhibition may obtain a prize, merely because there is no better exhibition of the same class to oppose it.

When the objects are arranged upon the table, every exhibition is marked with a letter and a number, which refer to a private list, and every possible precaution is taken to prevent the Judges knowing from whence the exhibitions come. The Judges are introduced into the tents, and the proper officer explains to them the general nature of the exhibitions, confining himself, however, to the mere indication of the parts of the tents in which particular classes of exhibitions are situated, or to matters of a similar nature. The two sets of Judges form their opinions independently of each other. When they have come to separate decisions they quit the tent, and adjourn to the Council room, where they compare notes, and settle to what letter and

numbers the awards shall be made. In cases of difference of opinion the majority decides. When their joint award is finally declared, the names of persons to whom the letters and numbers refer, are, for the first time, announced to the judges, and as speedily after as practicable, to the exhibitors themselves.

SUBJECTS OF EXHIBITION.

These will be divided into two classes; for the first class, nurserymen will compete with nurserymen: and private individuals, with private individuals; and separate prizes will be awarded accordingly; for the second class no distinction will be made between the nurserymen and private individuals.

CLASS I.—Azaleas, hardy, in collection, cut flowers; ditto, greenhouse, in varieties, number not to exceed twelve plants; Carnations, not exceeding 30 blooms; Pinks, ditto; Piccotees, ditto; Cacti, melon-shaped, whether in flower or not. No exhibitor is to show the same plant at more than one meeting during the season, otherwise the award to be void. Heartsease, in stands of 30 varieties; Exotic Orchideæ in collections of six species; ditto for the best single specimens; Pelargoniums, in collections of twelve varieties; Rhododendrons, cut flowers, not less than twenty varieties; ditto in pots not fewer than twelve plants, in twelve varieties; Roses, Chinese and Noisette, in collections of twenty varieties; Roses, Garden, in collections of fifty varieties; ditto, in Miscellaneous collections; Stove, or Greenhouse Plants, in collections of not more than sixty, nor less than twenty plants; Stove or Greenhouse plants, in collections of six single ornamental specimens of different genera.

CLASS II.—Alstromerias, Anemones, Amaryllidaceæ in collections of six specimens; Balsams, in sets of six; Herbaceous Calceolarias, in collections of six pots; Shrubby Calceolarias, in collections of six pots; Cucumbers, in braces, at the May meeting only; no medal will be placed at the disposal of the Judges for June or July; Cacti, the tall kinds in flower; Ericææ, Cape kinds, in collections; Figs, in dishes; Grapes; Melons, single specimens; Pine Apples; Peaches, in dishes of six specimens; Nectarines, ditto; Succulent plants, not before enumerated, in collections of six specimens; single specimens of new or ornamental plants.—The medals for these will be given entirely at the discretion of the Judges; Dahlias; Miscellaneous subjects, not comprehended under any of the foregoing heads.—GARDENER'S GAZETTE.

ON THE LADY BIRD, &c.—A lady whose garden was enclosed by a hedge of rose trees, and which rose trees were covered by swarms of minute insects, saw a hen lead her flock of chickens into the garden; her immediate intention was to have them driven out, but she soon perceived their eyes fixed upon the rose-tree, and watched them till they had satisfied their appetites and perfectly cleared some of the trees.

It is a fact well known that throughout the order of creation every tribe of animated beings is preyed upon by another, and thus, it is supposed, each tribe is kept within the true bounds of space originally prescribed for its existence. The cause of this wonderful dispensation is probably hidden from the power of the human faculty to find out—but the fact remains indubitable; and we see our trees and shrubs apparently preserved from the destructive voyages of these innumerable small flies, known under the denomination of Aphides, by the great variety of species of different orders and to which, in their larva or grub state, they serve as food. Amongst these devourers of the Aphis fly, the beautiful little beetle known commonly under the name of Lady-bird, is pre-eminently serviceable, and in that amusing work "Kirkby's Introduction to Entomology," it is related that in the year 1807, the shores at Brighton and of all the watering places upon the south coast, were literally covered with them, after having, in the state of grubs devoured thousands and ten thousands of the Aphis which had infested the neighbouring hop-grounds. And the hop-growers are said now to be so sensible of their services, as to place boys to prevent the birds destroying them.

FLORIST'S MANUAL.

BRUGMANSIA AUREA, &c.—On visiting the gardens of Mr. Barratt of Wakefield, we were very much pleased to find plants about two feet high in bloom of the true yellow flower seed *Pomagamansia* (see Advertisement in this month's Cabinet). The flower is about the size of the *B. sanguinea*, but of fine rich golden yellow colour. There is an inferior kind in the country, the flowers of which are of a dull buff colour, and which has been sold out for the true *B. aurea*; this has led to the denial (by many persons) of their being a real golden yellow kind. The true one is a very desirable plant for any cultivation. We also saw in fine bloom, a plant, two feet high of the *Epacris paludosa*; it has generally been considered a shy bloomer, but the plant we saw, was in profuse bloom. The flowers of the *paludosa*, we observed were produced in cymose clusters at the extremities of the lateral branches, whereas all other kinds we have seen in bloom, produce the flowers along the branches, they are of a pure white, and produce a very pretty appearance.

FUCHSIA GROOMIANA was in full bloom, and is a valuable acquisition to this pretty tribe of plants. There was a fine collection of *Ericas* in bloom, some of the new species being very handsome.

SOIL PROPER FOR PINK PIPINGS.—Take one barrowful of light rich mould, add to it half of one of light loam, with half of one of drift sand. When you plant the Pippings, sprinkle some water over them, and in an hour afterwards put the hand glass over them, which must remain on till they are struck, shading them from the mid-day sun. They must always be watered over the glass with the rose on, so that the water should go entirely round the glass. When the sun is off take the mat away, as they should have plenty of light.

ON MIMOSA SENSITIVA.—A correspondent at page 108 Vol. 4, wishes to know how to raise the sensitive Plant (*mimosa sensitiva*) the best method he can adopt is to sow the seeds in the latter end of March in 48 size pots, and when the seeds is up and showing the second leaf, they may be potted off.

ON PLACING GREENHOUSE PLANTS IN THE OPEN AIR DURING SUMMER.—When the pots are exposed to the heat of the sun, and drying winds, the fibrous roots which are in quantity about the roots, are much injured by it, although the interior of the ball of earth be in a moist condition. The result of the pots being so exposed during summer, is soon apparent by the edges of the leaves turning brown, or many of the leaves becoming wholly so. The plan I have adopted for four years has been the following, the plants have grown freely and been of a fine healthy green, blooming profusely. I made a bed of sifted gravel six inches deep, choosing the gravel that was about the size of horse-beans. This admitted the wet to draw away, at the substratum I had a few inches of coal ashes to prevent worms coming through. The surface being levelled, I placed the pots and filled up the spaces between with moss, nearly to the rims of the pots. This method kept them cool but not wet. If this be inserted in the May Number of the Cabinet, it may be of service to some of those persons who turn out plants during summer. CLERICUS.

ON HERACLEUM ASPERUM.—I am much interested in a plant, which although possessing no beauty of flower, is distinguished by its size and stately appearance; *Heracleum asperum*, the Siberian cow parsnep, which in the open border, under favourable circumstances, will attain a height of ten feet, with leaves four to five feet long. It is a biennial, and should be sown where it is intended to stand, in a rich soil. When it shoots up the second year, it may be watered with liquid manure and warm water, which will greatly promote its rapid and vigorous growth. W. C. J.

THE
FLORICULTURAL CABINET,

JULY 1st, 1837.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON STRIKING THE VERBENA MELINDRES.

BY A. D.

I BEG to suggest, if you think it worth your attention a plan for striking the runners of the Verbena Melindres, which I have found more successful than any other. When the plants are put out in beds, sink in all directions at about a foot distant, and in all pots (say 60.^s) filled with earth; as the plants increase over the bed, place a joint over each pot, confining it down by a peg or stone, and let them remain till you are apprehensive of frost; then divide at any length you like, the runner from the parent plant; take up the pots containing a strong well-established plant, and sink the pots again in baskets or boxes of mould, placing them in a cold frame or greenhouse. They will be fine plants for the next spring, and flower immediately on being put out; whereas cuttings or runners removed from the bed are often sickly and difficult to keep through the winter.

I have no doubt many other trailing plants would propagate well in the same way, but I have little opportunity of trying experiments, and a very thankless garden soil to work in; nevertheless, I am fond of all common gardening, and have found your little Cabinet very useful.

Respectfully yours,

A. D.

ARTICLE II.

ON THE HISTORY AND CULTURE OF THE TREE PÆONY.

BY AN ARDENT AMATEUR.

PÆONY belongs to Polyandria, Digynia Lena: Ranunculaceæ. Nat. Ord. *P. officialis*, has been in this country ever since 1562. It is a native of Switzerland. *P. cosallina* is a native of this country, but the only place where to my knowledge it is found coiled, is the Flat Holmes, a rocky island in the Bristol Channel, which by the bye, is noticed for its natural production. Pliny mentions, the Pæony as one of the first known plants, that it was called after Pæon, a physician who is mentioned by Homer in his Iliad, 5th book, 900th line, when Mars had been wounded:

“ Thus he who shakes Olympus with his nod,
 “ Then give to Pæon's care the bleeding god
 “ With gentle hand the balm he pour'd around,
 “ And heal'd the immortal flesh, and clos'd the wound.”

Pliny also says that it was called Pentoboran, and Glycisides by some, but the name seems to have been dropped. Montan is a Chinese word for this particular variety of Pæony, which was introduced by Sir Joseph Banks, from China, in 1794. Although he introduced it first to me, it had been known by hear-say for a long time, its beauty extolled, its magnificence exaggerated: £100 at first was thought a fair price, and in China, plants of the choice sorts were sold at a high price. It is a most magnificent plant and valuable; as with the protection of a wall or hedge near the ground with wicker work, it will flower in April, May, and June, and stands our winters. The difficulty of propagating it with success occasions it to be sold at a high price. *P. papaveracea* generally costs from 15s. to 20s. the single plant: to those who are desirous of propagating this handsome plant, I recommend the following operation, all of which I have tried and very generally with success.

When the Pæonies are budding, that is to say about February, a ring of bark about one-sixteenth of an inch wide should be cut out all round the stem, above and below each bud in the stem or stems of the plant to be operated upon: the sap being obstructed in this manner, lay the branches, leaving the leading shoot at the end only above the gound. Five or six months after,

the buds will be seen to have made vigorous shoots, the earth may then be removed and each bud with its fibres separated from the main layer, by taking the shoot off with half the stem attached to it, the whole length of the stem being still entire it may be replaced in the earth again, and a fresh set of young shoots more plentiful than the first may be expected.

I have also tried grafting with success, the operation is the same as with Dahlias, namely, a portion of the stem is inserted into one of the tubers of the same or any other variety of Pæony.

Cuttings would also strike in light rich soil in the shade without cover; but I have never been very successful in that mode of propagating this plant; but if they are inserted into the soil about three inches below the surface, and plunged into a light hot-bed, they will soon shew themselves above the ground, and make fine plants, but it is always a practice with me to plant only one half of the stem, and placing it longitudinally. By these various ways this beautiful plant may be propagated abundantly, and will most likely be the means of lessening the expence which at present must prevent many from possessing it.

AN ARDENT AMATEUR.

ARTICLE III.

ON THE CULTURE, AND A LIST OF HERBACEOUS PLANTS WHICH WILL THRIVE IN THE AIR, AND SMOKE OF CITIES.

BY WM. BOYCE.

No person having given the information desired by "A would be Suburban Gardener" (Vol. viii. p. 721) I now attempt to do so and although I regret that the subject has not fallen into abler hands, still, I hope the motive, and not the value of the offering, may propitiate its acceptance. The two principal causes of the want of success attending the cultivation of plants in town gardens are, the want of a proper soil, and a congenial air: the former is generally composed of too much lime and brick rubbish, which is any-thing but good for showy herbaceous plants. I would first ascertain if such were the nature of the soil. Should it prove to be of those materials, take it out of the clumps and borders to the depth of a foot, and fill them up with fresh loam, mixed with a

little rotten cow manure: in this soil will grow all the plants named in the accompanying list.

I shall endeavour now to assist this Suburban Gardener in rendering the air which surrounds his plant department more healthful to them. Dr. Hunter observes, that air contains the life of vegetables as well as animals: "it is a compressible elastic fluid." The smoke of populous towns and cities, where coal is the fuel, greatly lessens it elasticity and fluidity, and consequently renders it incongenial to plants. The practice observed by town gardeners in general is to give an abundance of water to the roots of plants: this should be discontinued, or, at least, given much more sparingly and less frequently: it is by over watering, in such gardens, that plants are as it were, surcharged with crude juices, which the leaves, while they are covered with dust, cannot pass off. I would, therefore, instead of watering so much to their roots, give frequent syringing over stems and leaves, and keep them as free from dirt as possible. They will then be able to perform their proper functions, perspire during the day, and during the night fill themselves with fresh juices. Cleanliness is as necessary to plants as to animals. The syringing should be performed at the approach of evening in the summer months, and just before sun-rise in early spring and autumn. Keep the mould in the clump and borders loose, by frequent stirring with a dutch hoe; water with a fine rose any vacant compartment. By this, and the syringing, the air will be rendered more humid. The China Rose may be induced to grow two feet high, by giving it, in addition to the soil I have mentioned, a good supply of rich manure, and keeping its leaves clean. The Fuchsias, particularly *Fuchsia gracilis*, should be kept to one principal stem; the side should be shortened to an inch of the stem: they then flower more freely. A Suburban Gardener will do well to examine whether his Georginas (Dahlias) are not infested with earwigs: if they are, hang a few lobsters claws on the sticks they are tied to; in these they may be caught; if he has a bloom he particularly values, tie loosely tow, dipped in sweet oil, just below the flower bud.

In the list below, I have confined myself to herbaceous plants, such as are showy, and will with the treatment I have described, not only grow, but thrive in town gardens.

<i>Achillia rosea</i>	<i>Campanula sarmatica</i>
<i>Aconitum ochroleucum</i>	<i>Catanauche cœrulia</i>
..... <i>variegatum</i>	..... <i>alba</i>
..... <i>versicolor</i>	<i>Chelom glabra</i>
<i>Actœa spicata</i>	.... <i>obliqua</i>
<i>Adonis vernalis</i>	.... <i>lyoni</i>
<i>Allium Moly</i>	<i>Corupsis verticillata</i>
<i>Anchusa italica</i>	..... <i>senifolia</i>
<i>Antirrhinum majus bicolor</i>	..... <i>laucelata</i>
<i>Aquilegia sibirica</i>	<i>Coronilla iberica</i>
..... <i>glandulosa</i>	..... <i>montana</i>
..... <i>atropurpurea</i>	<i>Corydalis nobilis</i>
..... <i>hybrida</i>	<i>Delphinium grandiflorum</i>
<i>Asclepias</i>	..... <i>mesolencum</i>
..... <i>pulehra</i>	..... <i>Barlowii</i>
..... <i>purpurascens</i>	<i>Dianthus latifolius</i>
<i>Asphodelus</i>	..... <i>japonicus</i>
..... <i>ramosus</i>	..... <i>superbus</i>
<i>Aster</i>	<i>Dictamnus fraxinella</i>
.... <i>alpinus</i>	..... <i>albus</i>
.... <i>arnellus</i>	<i>Digitalis micrantha</i>
.... <i>nova angliae ruber</i>	.... <i>lanata</i>
.... <i>sibiricus</i>	<i>Dodecatheon meadia</i>
.... <i>mutabilis</i>	..... <i>albiflora</i>
.... <i>spectabilis</i>	... .... <i>gigantha</i>
.... <i>serotinus</i>	..... <i>elegans</i>
.... <i>pulcherrimus</i>	<i>Dracociphalum speciosum</i>
<i>Baptisia exaltata</i>	..... <i>variegatum</i>
..... <i>australis</i>	..... <i>altaense</i>
..... <i>tinctoria</i>	<i>Eranthis hyemalis</i>
<i>Betonica grandiflora</i>	<i>Erigorer philadelphicus</i>
<i>Campanula carpathica</i>	..... <i>glabellus</i>
..... <i>persicæfolio cœ-</i>	<i>Erythronium deus cauis</i>
<i>rulea alba</i>	..... <i>deus cauis album</i>
..... <i>Letifolia cœru-</i>	..... <i>americanum</i>
<i>lea alba</i>	<i>Fritallaria imperialis</i>
..... <i>trachelium bicolor</i>	<i>Galanthus nivalis</i>
..... <i>speciosa</i>	<i>Gaillardia aristata</i>
..... <i>azurca</i>	<i>Gentiana asclepiado</i>
..... <i>alliariafolia</i>	..... <i>cruciata</i>

<i>Gentiana acaulis</i>	<i>Helenium autumnal</i>
<i>Geum coccinum majus</i>	<i>Helianthus decapitalus</i>
<i>Gladialus lyzantinus</i>	<i>Heleborus niger</i>
..... <i>communis</i>	<i>Hemerocallis graminea</i>
<i>Glaucium fulocum</i>	..... <i>disticha</i>
<i>Hedysarum observum</i>	..... <i>fulva</i>

I shall send you the remainder of the list at a future time, there being a great many more names. You may insert this or not, as you please.

ARTICLE VI.

ON RAISING SEEDLING DAHLIAS.

BY MR. D. PEARCE.

As several of your correspondents appear anxious to acquire a little knowledge on raising seedling Dahlias, I beg the insertion of the following:

All the new and splendid varieties which now make so great show in our gardens, have been raised from seed. To insure success to the cultivator, the following remarks may be found advantageous:

IMPREGNATION.—Artificial impregnation is certainly an advantage, and, if properly performed, will seldom fail to answer the intended purpose.

Select as handsome and compact flowering plants for the parents as possible. Having done so with a small pointed camel's hair pencil, take the pollen dust from one flower to another. The design of this, however, would in a great measure be frustrated, if bees were not prevented having access to the flowers. To prevent any disappointment from bees, cover the flowers intended to be the female parent, with a fine gauze bag, for two or three days before the florets expand.

As soon as the florets open, impregnate them, but retain the gauze bag over them for another week, until all danger from impregnation of bees are over. In collecting the seed in autumn most cultivators collect from the outside tiers alone, because they they were usually much finer and better ripened. These outside tiers, however, are probably inferior to the inside, for producing the greatest quantity of double flowers, the very finest

seeds usually producing the greatest quantity of single flowers, therefore it is advisable to collect both inside and outside tiers.

SOWING THE SEED.—February is the best time for sowing the seeds fill some pots or boxes with light sandy loam and leaf mould, or leaf mould alone, and thinly scatter the seeds, lightly cover them with the same soil finely rubbed through the hands upon them, and place the pots in a gentle hot-bed, or other convenient place where the seeds will receive warmth, and they will shortly be up.

As soon as they come into rough leaf, which will be about the end of March, transplant them two inches apart, into other pots or boxes filled with the same compost in which they are sown. About the middle of April they will require again transplanting.

In transplanting this second time, either place them in single pots filled with good rich loam, leaf mould, and rotten dung, or place them in a gentle hot-bed, in the same kind of soil. The former way is the best, although attended with most trouble, because the plants can remain in the pots until turned out entire into the borders, when all danger of frost is over. Keep them still in a gentle heat, and gradually expose them to the open air till they will bear it regularly in the day, but take them in when there is the least danger of frost at night.

When all danger of frost is over, they may be turned out with good balls into the situations where they are intended to flower.

SOIL.—They will grow well in any good garden soil, but if it be a good strong rich loam, they will flower earlier and better; also the colours will be more brilliant.

MANURE.—Much dung, however, must not be introduced into light soils for them, or they will make a great quantity of branches, and probably not flower till late in the year, when the frosts are just commencing. But if the soil be suitable, they will flower about the end of July.

And now, perhaps, some one or other of your correspondents will be kind enough to answer my query.

A friend of mine lately gave me a flower which he had received in a nosegay, and on enquiring of Flanagan & Co. opposite the Mansion House, was informed it was an Hibiscus. The colour of it was a beautiful kind of nankeen, with a beautiful scarlet at the

bottom of the petals, and the flower about the size of a Daffodil. I wish to know the soil, treatment, and method of propagating.

Yours, &c. D. PEARCE.

P. S. I have planted a slip about five inches long, that was joined to the flower in a thumb pot, in sandy loam, and placed in a slight hot bed, it has been planted a week, and looks fresh at present.

ARTICLE V.

ON DELPHINUM GRANDIFLORA.

BY LARKSPUR.

A CONSTANT reader of your pleasing Cabinet feel somewhat surprised in never seeing any remarks made of that beautiful flower *Delphinium Grandiflora*, or the great flowered Siberian Larkspur. Two years ago come summer, I was at Coldingham, and in Mr. Martin's nursery, where I saw a large square of that splendid blue flower, in full bloom; there might be a thousand plants, they grew from two to three feet high, upon a low, wet, and inclined to be a piece of boggy ground, where he propagates a great quantity every year. I purchased of him twelve plants, at 6d each, took them home with me, with a ball of earth to each, and planted them upon a rich vine border; they continued flowering that summer and autumn. The year following they grew to the height of six feet, they flowered all the way up the stalk, and was very gay; when the blooming was over I cut them down; they again rose and flowered, and was splendid in the autumn; rich light soil suites them best. Should you consider this worth your notice, I may in future do better.

LARKSPUR.

ARTICLE VI.

ON PELARGONIUMS.

BY GERANIA.

BEING a devoted admirer and cultivator of flowers, and residing in a remote part of the country where I have no opportunity of seeing the variety of new and beautiful plants, which are every

ON A LIST AND DESCRIPTION OF CARNATIONS.

year introduced to those florists who are more fortunately situated. I rely upon the pages and illustrations of your valuable publication for information upon the subject, and more particularly for guidance in the choice of Pelargoniums, with which, to enrich my collection; it was with the utmost satisfaction I perused the list given of them in the twenty-eighth number of the Floricultural Cabinet, by a correspondent, in answer to the enquiries of a Lady. It would confer a favour upon me Sir, and to my knowledge, also upon several others who take your work regularly, if you, or the same obliging person who sent the select list, would give one of the most choice Pelargoniums raised, or in the hands of the trade since June, 1835, to comprize names of the plants, by whom they were raised, where, and at what price they are to be bought in April next, with such description of the colours, &c. of the flowers, as will prevent mistakes, where, as in the case with Pelargonium called "*Queen Adelaide*," THREE flowers are known by the same name. If you could also give a print of three or more Geraniums, grouped in the same way in which the Chinese Chrysanthemums are so prettily shewn in number thirty-five of the *Floricultural Cabinet*, you would confer an obligation upon me, and many others who I have no doubt would be equally willing to pay double price for a number so illustrated.

Trusting you will take my request into your consideration, and grant them as speedily as your arrangements permit.

GERANIA.

ARTICLE VII.

A LIST AND DESCRIPTION OF CARNATIONS.

BY PENSER.

Continued from p. 111.

BROOK'S FLORA'S GARLAND (*pink flake*.)

This, perhaps, is the best of the many this successful grower has been the fortunate raiser of. For shape it commands the same place among Carnations as Springfield Rival in Dahlias. Nature requiring but little assistance from the most skillful dresser to set it off. The colour is also very good, the pink and white being very regularly and nearly equally divided. It has at length found a place in Hogg's Catalogue, and from thence will, I have no doubt into most collections.

ON A LIST AND DESCRIPTION OF CARNATIONS.

STONE'S VENUS, P. P. B.

Found in the catalogues under the head of pink and purple bazarres, occasionally loses its pink, and settles down into a flake: in each character I have seen it shewn in the same pan, in both it commands a first rate place as a bazarre, it is certainly most to be valued, there being so few pink and purples worthy of notice, or that can boast of both colours so distinctly marked as in the Venus. It has been out now many years, yet being difficult to strike, is still scarce, and fetches a high price, 15s. the pair, being very generally demanded.

YOUNG'S EARL GREY, C. B.

With this flower in a collection, the grower may be pretty certain of being able in due season to cut a good crimson bazarre. I do not know a flower on which greater dependence can be placed; I have now grown it for several seasons, and have invariably shewn it with success; a better, but certainly, not a more useful flower can be grown.

PRESIDENT, P. F.

I do not think I can recommend a better purple flake to notice than Martin's President. I have bloomed it for five or six seasons, and it has never failed to produce me good show-flowers. I must allow I have occasionally seen blooms of other sorts superior, but I believe, as much dependence is to be placed on this as any flower extant, its fault is that of sometimes throwing the bloom high above the calyx, so that unless great care is taken in dressing (particularly if the flower is a little stale) it will not bear the removal of the artificial support, occasionally dropping a guard leaf after being placed for exhibition.

WILMER'S CONQUERING HERO, S. B.

Were it possible to combine the merits of two flowers, I should only desire to rob Fletcher's Duke of Devonshire of its brilliancy in favour of this; and the Conquering Hero would be the best scarlet bazarre ever raised, it can boast of every good property in a flower, save being a little dull in colour, but yet so trifling is this defect, that is hardly perceptible except in close contact with such a flower as the Duke of Devonshire. It is very large, distinctly bazarred, and rose-leaved.—The next flower I shall call attention to is

ON A LIST AND DESCRIPTION OF CARNATIONS.

HUFTON'S MAGNIFICENT, S. F.

Which is in my opinion "and others whose judgment cry in the top of mine," an excellent flower. I saw it for the first time last year, but not having bloomed it myself, cannot describe its habit; I can only say that if it was the most uncertain flower ever raised, it should still have a place in my collection to be cherished with the hope of producing one bloom as good as it was shewn me last season.

WOOD'S WILLIAM FOURTH, C. B.

I don't know either Carnation or Piccotees that bears this growers name but may be admitted into the most select collection; but as I shall have occasion to make honourable mention of Wood's name in my list of Piccotees, I shall at present content myself by hoping he may have a continuance of the success which has attended his labours hitherto, and that he has yet to produce for the benefit of brother florists many such as that prince of Piccotees "Agrippina." William IV. is a good bazarre, much resembling Earl Grey, but, perhaps, a little more brilliant in colour, though I think, not quite so perfect in shape.

DALTON'S LANCASHIRE JASS S. F.

As I bloomed this flower for the first time last year and received my plants late, I should, perhaps, by describing my blooms, which were small, and thin of leaves, condemn a flower which I am given to understand deserves to be well spoken of. I received it with a good character from a very good judge, and as my plants are looking well this season, I shall abstain from passing an opinion until after another blooming season, when I can do so with more satisfaction to myself and justice to the flowers.

BROOK'S GLORIA FLORUM, S. B.

Is a very large flower, much cultivated in the west of England, it is by no means equal to Willmer's Conquering Hero, the defects in that flower being multiplied in this: in addition to the dullness of its colour, the white is far from good. Those florists who esteem size the best of all properties, will consider the flower a great addition in their collection.

ON A DESCRIPTION OF BINS, &c.

JACQUES GEORGEANA, C. B.

From being a late bloomer, is seldom seen exhibited, and therefore but little known. It is one of the very highest coloured flowers, beautifully bazarred, and possesses a property seldom found amongst such, of rarely running in colour: the difficulty of producing it in season is to be regretted, as it would be a fine variety in a stand; but being at least a fortnight later than the generality of Carnations, is in perfection only when others are fading.

I have now spoken of some of the varieties of Carnations, but propose returning to the subject in some future paper if found interesting to your readers. I hope in your next Number to commence my list of Piccotees, a flower which has made most rapid strides within the last few years, and from the quantity of seed saved in 1836, a season or two will, I expect, produce some splendid varieties.

PENSEE.

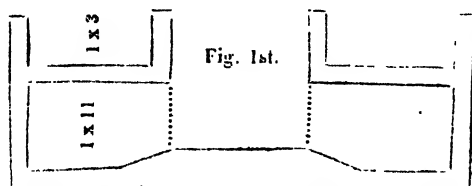
ARTICLE VIII.

A DESCRIPTION, &c. OF BINS FOR HOLDING SOILS, &c.

BY AN OLD SUBSCRIBER.

THE enclosed is very much at your service, and should you consider it of sufficient general interest, I shall be glad to see it inserted in the Cabinet. I am of opinion that it is one of the many conveniences still required for the purpose of facilitating the routine business of gardening:

Fig. 1. In the plan, is a section endwise a set of Bins for holding soils, manures, and composts.



ON A DESCRIPTION OF BINS, &c.

Fig. 2 A ground plan of the low tier of Bins.

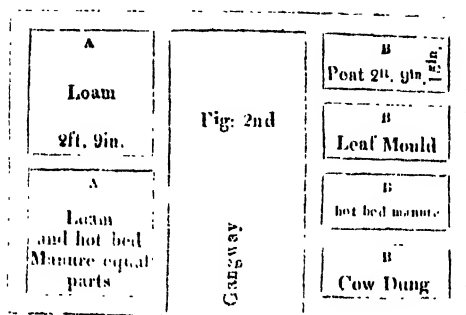
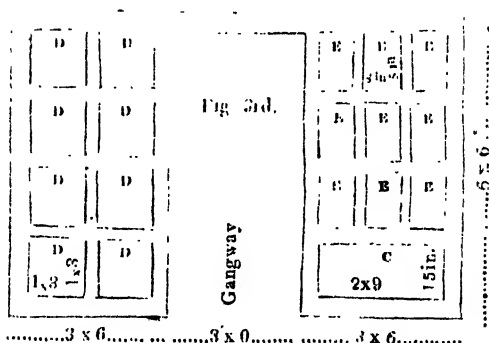


Fig. 3. A plan of the top or upper tier of Bins.



The capacity of the different Bins is such as may be required for the use of amateur gardeners, but the dimensions and number may be increased so as to suit the purpose of any cultivators of plants, however large the establishment.

The object of this plan is to enable any person to arrange his materials for propagating plants in something like order, and in the least possible space (it is an excellent rule to have a place for every thing, and every thing in its place, it saves a world of trouble.) It is also an advantage to have such small quantities in compact masses, when once moistened they keep so for some

ON A DESCRIPTION OF BINS, &c.

time, and this state is essential to the perfect decomposition and commixture of the materials forming the compost. The Bins being open, are fully exposed to all changes of temperature, but the whole set should be covered with a light roof to protect them from excessive wet, and shade them from the heat of the sun.

The bottom of the lower tier of Bins, is six inches below the surface of the ground, or level of the passage or gangway, (which should be a paved one) this is to prevent the draining into the gangway of a superfluous mixture from the soils kept in the Bins. The whole may be surrounded with an ornamental bank, hedge, &c.

The 2 Bins marked A	hold	8 bushels each	} Fig. 2.
The 4 do. B	..	4	
The 1 do. C	..	3	} do. 3.
The 8 do. D	..	1½	
The 9 do. E	..	1	

The most economical and also very durable construction would be that of bricks set in Roman cement in the partition walls or their edges. The bottoms of the Bins in the upper tier should be of stone, each Bin should be labelled (three inches by one broad) with white paint, and upon this may be written with a black lead pencil (NB) the name of the compost. The following is a list of the size and number of pots which a bushel of compost will fill. The utility of this list consists in enabling a person to mix as much of any one kind of compost as will be required to fill a given number of pots, so that there will not be any waste of materials, which in situations where they are scarce, will be of no slight importance.

A bushel fills 160 small 60s 80 large 60s 60 small 48s 40 large 48s
26 small 32s 20 large 32s 14 small 24s 10 large 24s

I have been at some trouble in collecting for my own use, (principally from the pages of the Cabinet) a number of formula for preparing composts, they are arranged in a tabular form, which I find exceedingly convenient for reference. Will the list be acceptable? (Yes CONDUCTOR) if so, I will send it. I really think it would be very useful to the readers of the Cabinet. I think gardeners need not be under any apprehension of making amateurs too wise, for very few indeed will aim at more than

ON THE CULTIVATION OF THE ROSE.

cultivating plants, and the very circumstance of being able to do so, will induce many to become purchasers, and afterwards excellent customers to Nurserymen and Florists. This has been exactly my case, and entirely in consequence of taking in the Cabinet. Your own exertion and that of others engaged in similar publications will bid fair to turn the whole country into a flower garden, and will also have a vast influence in a moral point of view. Gardening generally induces a stimulus to industry and cleanliness, and no doubt soften the manners of the labouring class of persons.

Pimlico, London.

AN OLD SUBSCRIBER.

ARTICLE IX

ON THE GRAFTING OF THE ROSE.

BY POMONA

THE cultivation of the Rose has long been considered worthy of the notice of the lovers of Flora, and not only by those who are in exalted stations of life, but even by the humbler classes; it is an ornamental shrub of great beauty, and the brilliancy of its colour, and the fragrance of its smell, is justly admired by all. Having seen an article in the last month's Number of your valuable work the Floricultural Cabinet, on the "Culture of the Rose," perhaps it may be gratifying to some of your readers to learn the method which I have pursued in grafting that fragrant flower.

In the first place it is requisite that you should secure a supply of buds before the time they are wanted, either by having the plants from which they are to be taken in your own garden, or from a nurseryman on which you can rely; if, however, you cannot obtain any by these means, nothing remains but to buy a few plants for the purpose. If the plants to give the buds be on their own natural roots, see that they are planted as soon as they have lost their leaves in autumn, in order that they may get well settled before the spring, but if you wish to secure a good supply of buds, purchase a strong stemmed standard Rose or two: see that they have plenty of wood, and are in health, taking care to remove any leaves on the trees previous to planting.

The next thing to be looked after, is to secure good stocks,

ON THE GRAFTING THE ROSE.

November being the best month calculated for that purpose. When your preparations are made, nothing more is necessary than to send to the nearest wood-man and desire him to make a collection for you, either from the woods, or save you a supply when he grubs up a hedge.

The largest stocks are those which have an oval fruit, they are called, indiscriminately, dog roses, buckbriars, and hang-berries. Different roses want different stocks. A tree that of itself would make a yard of wood in a season, is confined and injured in its operations, by having, perhaps, a single bud upon it of some rare and delicate kind of rose, which makes but feeble and delicate shoots. Again, if a free growing bud, such as the Noisette, Greville, &c. were put upon a small stock, the bud would entirely drink up the sap of the stock, and instead of a fine bushy head, would either grow in one long shoot, or, at all events, make a small and mean head, in comparison to what it would have done upon a larger stem. Choose, therefore, about a third more stocks than you absolutely want, and let the others be laid in the ground as a reserve, you will find them serviceable at some future period.

The stocks are to be kept a short time out of the ground, as the air injures the root. This is very important, as the expected shoots depend upon it: but if they have been weakened by lying out of the ground, they regain a portion of their strength by being much shortened in the stem, for the roots of all trees are proportioned to the stem they have to maintain, it is therefore evident that an injury to the one must also injure the other.

If you are desirous to keep your stocks some time before planting, they must, like all other trees, have their roots covered with mould, otherwise it will retard the future growth of the plant. When stocks are sent any distance, a puddle of clay and water should be made, and the stocks dipped in it, so as to form a coating to defend them from the wind; and then, being packed up in an old bas mat, they will carry without injury.

The trimming of the stocks ought to be carefully attended to, both as regards the mode and requisite height. Four feet, three feet, two feet six inches, two feet, one foot six inches, and one foot, are the heights most likely to succeed. Should any of your numerous readers derive any benefit from the above sketch, it will give great pleasure to

POMONA.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. GARDENIA PANNEA,
- Cloth-leaved*
- . [Bot. Reg. 1952.

GINCHONACEÆ. GARDENIEÆ. PENTANDRIA MONOGYNIA.

The plant was introduced a few years back to the London Horticultural Societies Garden; it is a stove shrub from South America. The flowers are single, two inches across, of a pale sulphur colour, not fragrant. *Gardenia* in compliment to Dr. A. Garden, a Physician in South Carolina, who was a correspondent of Linnæus.

2. GESNERIA SCEPTRUM, VAR IGNEA.
- Sceptre flowered*
- .
- Pale flowered variety*
- . [Bot. Mag. 3576.

GESNERIACEÆ. DIDYNAMIA ANGIOSPERMIA.

Introduced into this country from Brazil, and has bloomed in the Glasgow Botanic Garden in 1836. The flowers are of a dull pale reddish-yellow, with a darker edge to the limb. *Gesneria* in compliment to the celebrated John Gesner.

3. LINUM MONOGYNUM
- Monogynous Flax*
- . [Bot. Mag. 3571.

LINEÆ. PENTANDRIA MONOGYNIA.

It is now well known in the country by nurserymen and florists, but we think it deserves extensive publicity, and therefore again bring it to the notice of our readers. It is a most desirable plant for the greenhouse, or if turned out into the open border in a warm situation in summer it will bloom profusely. The large corymbs of fine white blossoms being very showy, a bed of the plant makes a fine appearance, blooming all the summer season.

4. MAXILLARIA STEELII,
- Mr. Steel's*
- . [Bot. Mag. 3573.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native of Demerara, from whence it was introduced last year by Matthew Steele, Esq. It has bloomed in the collection of John Moss, Esq., Otterspool, near Liverpool. The scape is short and single flowered; the blossom rather large, near an inch and a half across, fragrant, of a dingy reddish-yellow colour. The perianth blotched with deep purple. Lip streaked with purple, red and yellow. It is a singular flowering species, and a valuable addition to this very interesting tribe of plants. *Maxillaria* from the resemblance to the Maxillæ of insects.

5. MEGACLINIUM MAXIMUM,
- Largest*
- . [Bot. Mag. 1959.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native of Sierra Leone, which has been introduced by Messrs. Loddiges's in whose collection it bloomed in 1836. The flowers are not very interesting, they are very small, produced along a sword shaped rachis, and are of a greenish yellow, spotted with red. *Megacelinium* from *megas* large, and *kline* a bed, in allusion to the broad sword-shaped bed or rachis of the blossoms.

6. PERISTERIA CERINA,
- Waxen Dove Flower*
- . [Bot. Reg. 1953.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

Mr. Knight of King's Road, introduced this curious species from the Spanish Main. It has bloomed in Mr. Knight's collection. The flowers are

large, produced upon a pendulous raceme. They are of a pale sulphur, intermixed with deep yellow; and have a strong scent of juniper. *Peristeria* from *peristeria* a dove. The original kind *Pelata* has a column which resembles a dove hovering with expanded wings.

7. *PHILODENDRON CRASSINERVIUM*. *Thick-ribbed*. [Bot. Reg. 1252.

ARACEÆ. MONÆCIA TETANDRIA.

A native of Brazil; and has bloomed in the collection of the Rev. Frederick Beadon, of North Stoneham. It is a climbing plant, which in its native country grows to a considerable extent, fixing itself to the trunks and limbs of trees, and the shoots hanging down like cords from tree to tree rendering the roads often impassable. The arum formed flowers are about four inches long, of yellowish-white colour. *Philodendron* from *phileo* to love, and *dendron* a tree. Alluding to the habit of the plant.

8. *PHALANGIUM POMERIDIANUM*. *Afternoon flowering*. [Bot. Flow. Gard. 381

ASPHODELEÆ, HEXANDRIA MONOGYNIA, SYNONYMS, *SCILLA POMERIDIANA*,
ANTHERICUM POMERIDIANUM.

This plant is cultivated in the very celebrated collection of Mrs. Maryatt, Wimbledon. Its native country is probably the Cape of Good Hope. The bulbs are said to be an excellent substitute for soap. It is a half-hardy bulbous plant. The flowers are produced upon a paniculated spike. Each flower is about an inch and a half across, having narrow undulated petals, white. *Phalangium* from *Phalaggos*, a venomous spider, the plant curing its bite.

9. *SARCANTHUS TERETIFOLIUS*, *Round leaved*, [Bot. Mag. 3571.

ORCHIDEÆ. GYNANDRIA MONANDRIA.

This Orchideous Epiphyte, was introduced some years since into this country by Mr. Brookes of Newington Green. It is a native of China. The flowers are produced upon a spike, seven or eight upon each. Sepals green, streaked with reddish lines. Lip, white. Each flower is about three quarters of an inch across. *Sarcanthus* from *sarkos* flesh, and *anthus* a flower; in consequence of the fleshy nature of the blossom.

10. *SPARAXIS STELLARIS*, *Starry flowered*. [Brit. Flow. Gard.

IRIDEÆ. TRIANDRIA MONOGYNIA.

The flower is of a rich purple colour, the ends of the petals are a little lighter, as is the outside of the petals. The present kind is cultivated by Allen and Rogers at Battersea.

11. *STRANVÆSIA GLAUDESCENS*. *Grey leaved*. [Bot. Reg. 1956.

ROSEACEÆ. ICOSANDRIA PENTAGYNIA.

A very pretty evergreen shrub from Nepal, from whence it was introduced to the garden of the London Horticultural Society, about ten years since. It is about as hardy as a Myrtle, growing well, and, blooming in June, if trained against a wall. The plant has been sold out under the name of *Stratagus glauca*. The blossoms are produced in a largish corymb, white. They are succeeded by small orange coloured berries. The habit of the plant is to shoot early in spring, and in consequence the ends of the shoots are very liable to be damaged. *Stranvæsia* so named in compliment to the Honourable W. F. Strangways, F. R. S. of Abbotsbury Castle, Dorsetshire, a very great patron of Floriculture, and Botany.

12. SYMPHORICARPOS MONTANUS, *Mountain St. Peter's Wort*. [*Botanist*.

CAPRIFOLIACEÆ. PENTANDRIA MONOGYNIA.

A hardy shrub, much branched, growing from five to six feet high, and almost evergreen. It is a native of Mexico, found at the height of seven or eight thousand feet. *Symphoricarpos* from Samphoreo to collect, and *karpos* a fruit, from the berries being closely crowded together.

REVIEW.

A history and description of the different varieties of the Pansy, or Heartsease now in cultivation in the British Gardens, illustrated with twenty-four coloured figures of the choicest sorts, by I. Sinclair and J. Freeman. London, May, 1837. Thirteen numbers of this neat little work have previously come out; the fourteenth for May, 1837 contains a figure of the Ivor Hero Pansy. The engravings are on stone, and the colouring well executed. The number contains four pages of letter press. The work is very neatly executed, and well worth procuring. This very lovely tribe of flowers demands the attention of every person possessing a flower garden. We grow at the Downham nursery, more than five hundred kinds, including all the first rate flowers that are in the trade, and we are so enthusiastically partial to the Pansy as to induce us to procure every superior kind that it is in our power to do. We have drawings taken of several most splendid seedlings, will which appear in subsequent numbers of the Cabinet. The following judicious observations on raising seedlings are extracted from the work under review:

"As the season for raising seedlings is now approaching, we hope those who wish to excel in this pleasing and interesting pursuit, and have a few leisure hours to bestow upon it, will attend to the suggestions which we presume to offer. Their chances of success would be greatly increased, if they would take the trouble to fertilize the flowers by an artificial process. And this is properly the business of the amateur; for a nurseryman, whose attention is distracted by so many occupations, has no time for such a purpose, but must be content to leave it to nature to perform her own offices, or trust to the insect tribe to carry the farina accidentally from one flower to another. The stock of the amateur indeed, is better suited to this work, than that of the nurseryman; for though inferior in quantity, it is, or ought to be, much more choice in quality, such as grow flowers for sale being obliged to keep many sorts contrary to their own judgment, in order to gratify the taste, or the want of it, of those who deal with them.

We are not ignorant, however, that the task we recommend is both difficult and tedious. The plants are so low in their habit of growth, that a person cannot work upon them without continual stooping, or even going down upon his knees. We would advise those, who wish to try the experiment, and to know the result of their practice, first to select six or eight of the largest and best shaped flowers, and to put them into pots, in which they could be removed into any convenient situation, and brought close to the eye of the operator. Mark the flowers you intend to fertilize with a small piece of matting or thread, tied loosely round each, so as not to interfere with the flow of its juices, and keep a record of the different sorts with which you have crossed them. If the operation is new to you, it will be as well, previously, to dissect a few common flowers in different stages of their growth, in order to become acquainted with their parts, and the different symptoms of their maturity. When the flower begins to expand, you must of course divest it of its male organs, or it would impregnate itself, and all would be lost. This you would soon learn to do, if you would cut open a few flowers when they are partially blown, and observe the five

which, when ripe, shed then powder, called the pollen, on the stigma, and so fertilize the flower. These anthers therefore must be carefully extracted before maturity, so as not to injure the stigma, which is to be powdered with the fertilizing dust of another flower. A small pair of tweezers will be useful for the first operation, and a soft brush of Camel's hair for the other. Soon after the farina has been put upon the stigma, you will perceive the seed vessel begin to swell gradually, and in the course of a fortnight you will be in fresh danger of having your labour thrown away, for in hot weather the pods will often burst very suddenly, and scatter the seed in all directions. In order to prevent this, tie a small piece of tape or gauze about the pod, leaving it loose enough to allow room for the vessel to swell, but making sure of catching the seed whenever it is ejected. Sow the seed in a separate pot, with a distinct mark to it, that you may learn by the union of what plants to produce the finest flowers. Put them, when strong enough, into a shady situation and some of them will show bloom in the ensuing autumn so as to enable you to form a judgment of their merits. And when you have acquired more experience, forget not to furnish us with any useful remarks that may occur to you, for the benefit of others."

SCIENCE OF BOTANY.

Continued from Page 139.

In exogenous plants, the new matter being added externally, a bark covering is necessary to protect it, when young and tender, from the action of the atmosphere, and from external injury from other causes: hence an important office of the bark. In endogenous plants, the new matter, being added internally, is provided with an excellent covering formed of the main substance of the plant, and has no need of a separate protecting integument.

In spring there is found between the bark and the alburnum a viscid gelatinous fluid called *cambium*, which, it is supposed, is the principal agent in forming the new layers of wood and of bark. This fluid is composed of the residue of the cambium of the preceding season, enriched and renewed by the descending sap, and mixed with some of the secretions of the vegetable.

"M. Mirbel and others are of opinion that the cambium annually forms a new layer of alburnum and a new layer of bark. This is the most simple mode of formation, and probably that which takes place. We know that the cambium can repair the bark when it has been injured; and, as the new layers of wood and bark are formed where this fluid is found, it is not unreasonable to suppose that it acts an important part in this process.

"M. Du Petit-Thouars advanced a singular theory, namely, that the successive formation of woody layers is caused by the development of buds, from which, in spring, issue numerous fibres, which descend in the cambium between the liber and the alburnum. In gliding downwards they meet the fibres which descend from other buds, and form a layer of greater or less thickness, which soon becomes solid, and forms a layer of wood.

"Each bud is regarded as a separate system of vegetation. The buds are considered so many individuals placed upon a common stock, and elongating in two different ways—upwards, forming new stems and branches, leaves, &c.—and downwards, forming roots; the descending fibres being the roots which the buds put forth, and the cambium bearing the same relation to the roots of the bud as the soil does to a germinating seed. M. Thouars considers buds as analogous in structure and mode of development to the embryo of the seed, which in germinating produces a young stem analogous to the scion produced by the growth of a bud. He calls the latter, a fixed or ad-

in an embryo, which he denominates that within the seed a free embryo. Thus the wood and bark are considered as formed of the roots of the buds which are annually developed on the surface of the vegetable.

"Whatever may be the mode in which the formation of the new layers takes place, it is known that the matter which forms them descends from the leaf-buds or leaves, either in the innermost layers of the bark, or between it and the alburnum.

"If all the buds or leaves be removed from the upper part of a branch, no increase in diameter will take place above those that are left. If a ring of bark be removed from a tree, the part below will not increase in thickness, and the upper lip of the wound will heal quickly, while the lower lip will not. This operation has been recommended for improving the fruit of trees; the descending sap or proper juice, confined to the upper part, increases the size of, and enriches the flowers and fruit developed above the place from which the ring has been removed. This is called ringing; care must be taken to make the ring very narrow in order that the parts may easily re-unite.

"If a ligature be placed tightly round the bark of a tree, the part above the ligature will swell, but not the part below; and it has been observed that the rate of increase of the diameter of any part of a branch or tree is in proportion to the number of leaf-buds developed above that part.

"From their peculiar structure Exogenous stems readily throw out branches, and hence the form of the trees in this country is so different from that of the Palms. Figure 3 shows the general outline of an oak tree. The part of the tree where vegetation is active being near the outer surface, the buds easily penetrate and grow into shoots, from the sides of which also buds are developed, and thus the tree is branched and subdivided to a great extent, and from a short distance above the ground.

"From the same cause such trees attain a great thickness and live to a great age. The new matter being added externally, has little resistance to overcome (only that of a thin bark, which is easily distended and pushed out) and thus there is hardly any limit to its increase in diameter, while, becoming only more securely fixed as it grows, and the growth going on between the bark and the wood almost independent of the inner parts, there is as little limit to the duration of the tree. In fact each annual layer of alburnum or bark seems to have an independent existence—hence trees are often found flourishing, though quite decayed and hollow within.

PROPAGATION OF PLANTS.

"There is a very large assemblage of plants which produce their seeds by stamens and pistils, and they are called flowering or phænogamic plants. In most cases the stamen and pistil are together (in the same flower), the flower being then called perfect.

"In some plants the stamen and pistil, though on one plant, are not together, as on the oak and the nettle. The flowers are then said to be monoecious (par. 216), and in these cases the pollen either, falls on the stigma, or is conveyed to it by the wind, or by insects.

"In other plants, as the willow, the hop, one plant has stamens only, while another has pistils only. The flowers in this case are called Dioecious, and the same means serve to convey the pollen as in the last case. A flower with pistils only is called Pistilliferous; one with stamens only is called Autiferous.

"In the following tribe of plants the pollen must reach the stigma in order that the ovules may ripen and become seeds, and there are many different ways in which this is brought about.

"In a great number of cases the flower is erect, the stamens are longer than the style, so that the anthers are above the level of the stigma; and when the cells of the anther open, the ripe pollen necessarily falls upon the stigma. In other cases where the pistil is longer than the stamens the

flower is inverted or drooping, so that the pollen still falls upon the stigma (as in the *Ruschia*). In other cases of this kind, where the flower is not drooping but erect, there is a nectary (a honey store) at the bottom of the flower, which attracts insects: these, agitating the stamens as they enter, and receiving a quantity of the pollen on their bodies, necessarily deposit a portion of it on the stigma as they fly out. In many plants, as in rue, barberry, rock-rose, pellitory of the wall, kalmia, grass of parnassus, the stamens are formed with an elastic spring, by which they throw the pollen on the stigma, or have a moving power by which they approach the stigma and deposit the pollen upon it. In monoecious plants, the antheriferous flower generally occupy the upper part, so that the pollen falls upon the other flowers. In these, in dioecious, and indeed in all plants, the wind is a leading agent in bringing the pollen (which is a very light powder) to the stigma. In a dioecious plant which grows under water (*Valisneria spiralis*), the (antheriferous) flowers become detached, rise to the surface, and float about, while the pistilliferous flower, which retains its connection with the plant, has a spiral stalk, which unfolds and lengthens out so as to elevate the flower above the surface of the water—there the two kinds of flowers meet, and insects or the wind apply the pollen to the stigma, an operation which does not go on effectively under water. Then the stalk of the pistilliferous flower resumes its spiral form and draws the flower under water, there to perfect the seeds. The *Urticaria*, a plant which grows under water, and has perfect flowers, (par. 170), has bladders attached to its roots, which become filled with gaseous matter, so as to cause the plant to ascend to the surface when the pollen is ripe, and effect the application of the pollen in the air. When this is done, the bladders loose their ariel fluid, and the plant again becoming specifically heavier, descends to ripen the seeds.

“The pollen of the stamens, which falls upon the stigma, being conveyed through the style of the ovules in the germen, vivifies them, causes in them a new and more vigorous growth, so that they enlarge and grow into seeds, bodies which are capable of becoming plants similar to those that produced them.

“When the seeds are ripe, the seed-case, or pericarp opens (delisces) to let them escape. They fall to the ground, and, under the influence of heat, air, and moisture, take root, grow, produce the same kinds of organs, and pass through their various stages of existence in the same way as the plants which produced them.

“The dehiscence of the pericarp is beautifully seen in willow-herb, violet, broom, and many other well-known plants.

“Most plants produce a considerable number of seeds, and in many cases there is some peculiar construction in the pericarp or seed, by which the seeds are not allowed to fall down and accumulate on the spot where they grew, but are scattered and conveyed to a distance (disseminated) from the parent plant. In most plants that do not drop their seeds around themselves, the wind is the leading agent in dispersing the seeds, being often assisted by the great lightness of the seed, by some appendage, such as wings or feathers (as in willow-herb, in dandelion, and thistle, and the rest of the syngenesious tribe) which the wind in wafting the seed to a distance, or by the pericarp dehiscing at the upper part and sides, so that the seeds do not fall out, but are shaken or blown out by the wind. In other cases as in the broom (*Cystinus*), the balsam (*Impatiens*), the *Oxalis*, there is a mechanical contrivance in the pericarp or seed, which has the effect of a spring, in projecting the seed when ripe, to a distance from the parent plant.

To be continued.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES,

ON THE DAHLIA.—"To a Star in the East," I was much pleased with an article on the Dahlia, contributed by a Star in the East, who promised to continue it, but has not kept his word. I trust, however, he has not yet gone to bed, but that he will still shine for a month or two longer.

June 11th 1837

TIMOTHY.

My compliments to Pensee, and I am obliged for his excellent observations,

ON BONE MANURE.—It was mentioned in your April Number that the remarks of your correspondent T. was too late for that Number. They related, as you perhaps know, if you have not forgotten the circumstance, to an enquiry as to the persons who were able to furnish the article on Bone Manure. I have looked in vain in your last or May Number for any information on the subject. Were the remarks in question, or rather the renewed enquiry, too late for the May Number also?—(It had escaped our notice, but shall be attended to—*COND.*)

May 6th, 1837.

T.

ON THE HEIGHT OF THE SWEET SCENTED CHINA ROSE WHEN TRAINED AGAINST A WALL.—To what height has the sweet scented China Rose, trained against a wall, been known to grow? An early answer to this, in the Cabinet, will much oblige an,

(OLD SUBSCRIBER.

REMARKS.

NARCISSUS MINOR ET PUMILA, &c.—Not having read in any Numbers of the Floricultural Cabinet any observations on the culture of Narcissus, I beg to call the attention of the readers of the Cabinet to that beautiful family of plants, whose merits, if better known, would be more extensively cultivated, flowering in the early part of spring, makes them desirable plants, and when planted in beds in sorts or single patches, strikingly beautiful.

N. minor, pumila, cernicus, tenuifolius, and triandrus are well adapted for planting in beds near walks, growing from six to eighteen inches in height, the other sorts, amounting to fifty species and varieties, are desirable plants, and I hope, will shortly become better known to the Florist in general, and more extensively cultivated; and instead of seeing them in botanical collections, they will find a place in every flower garden.

J. W. D.

MIMOSA PROSTRATA.—A very pretty trailing plant, which blooms profusely, the flowers are of a delicate pink colour. It is admirably adapted for training up a wire trellis pillar, &c. The plant grows very freely. It will grow either in the greenhouse or open air; it deserves a place in either. We have seen it most beautiful, and have procured a quantity of plants.

MONOPHILA INSIGNIS MAJOR. RHODANTHE MANGLESII, &c.—I have had a number of Plants of *Nemophila insignis major* and *Rhodanthe Manglesii* in bloom in pots in my greenhouse for a month, and will doubtless continue for several months. Each kind is allowed a very rich soil, and plenty of pot-room; one plant, however, will soon cover a tolerably sized pot. Both the kinds deserve extensive cultivation.

CLERICUS.

VERBENA TROCEDIANA, &c.—This lovely plant is now blooming profusely with us, and fully equals all that has been said on it, when first noticed it in the Cabinet. It is a most valuable addition to this neat and beautiful flowering genus. We have also obtained a white flowering kind which is highly spoken of, and a fine species with blush lilac flowers, producing large clusters of blossoms. *Clematis azurea grandiflora* is also in bloom with us, and is certainly one of the most charming climbing greenhouse plants yet introduced. Its fine blue flowers produced in profusion, renders it a most desirable plant. It ought to be in every conservatory or greenhouse.

PETUNIAS.—The very striking hybrids we gave drawings of last month, now show their fine and striking blossoms with us in profusion, they richly merit a place in every greenhouse or flower garden,

SHOWS FIXED FOR JULY.—Horticultural Society, Regent-street, three o'clock, Tuesday the 4th.

Metropolitan Society, Crown and Anchor, seven o'clock, ditto.

Wolverhampton and Staffordshire Floral Society, Tuesday the 4th.

Tamworth Horticultural Society, Wednesday the 5th.

Horticultural Society, Chiswick Saturday the 8th.

Ditto ditto Regent-street, three o'clock, Tuesday the 18th.

Metropolitan Society, Crown and Anchor Tavern, seven o'clock, ditto

Wiltshire Horticultural Society, ditto.

Ditto ditto Show Carnations, Members only, Thursday the 20th.

Bath Royal Horticultural and Floricultural Society, ditto.

North London, Dahlias, ditto.

South Essex Horticultural and Floricultural Society Stratford, ditto

Bristol Royal Horticultural and Botanical Society, Tuesday the 25th.

Huddersfield Horticultural Society, Thursday the 27th.

Wingham, Kent, Horticultural and Floricultural Society, ditto

Bedford Horticultural Society, open Show, Friday the 28th.

METROPOLITAN SOCIETY OF FLORISTS AND AMATEURS.—The Committee have determined that the prizes should consist of medals only, which the Committee have had prepared, and which they wish to see received by the persons to whom they may be awarded: and for this reason, they reduce the value of the prize one-third to persons who receive them in money, the medals are;

The small Adelaide medal, value 15s. The large ditto ditto, value £1 10s. The King William medal £3. The small gold Adelaide medal, £7 10s. The large gold Adelaide medal, value £15. The gold King William medal, value £30.

Persons to whom any of these may be awarded will have the option of taking two-thirds of the value in money, or the medals themselves; and these may be received as awarded, or allowed to accumulate, and be received in a more expensive medal.

FOURTH EXHIBITION SHOW JULY 20, (members only)

CARNATIONS.—Best stand of twelve, large medal, Adelaide medal, and small ditto.

PICCOOTES.—Best stand of twelve ditto, ditto, ditto.

Entrance, 1s. each stand, first Tuesday in July.

REFERENCE TO THE PLATE.

These very striking Panzies are seedlings in our possession, as soon as plants are ready for sale, notice will be given.

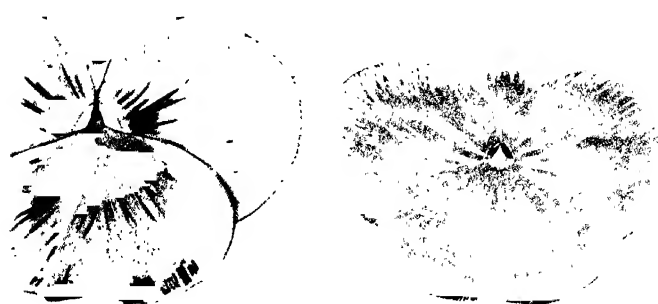
A

B



C

D



Conium maculatum



1



2



3



4



5

THE FLORICULTURAL CABINET,

AUGUST 1ST, 1837.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CULTURE OF HEATHS, &c.

BY MR. JOHN LYFFE, GARDENER TO THE REV. W. MANSFIELD, MILTON
BRYANT, WOBURN, BEDFORDSHIRE.

IN the number of your Magazine for February, there is a query on the management of 'Ericæas,' by W. P. Hamelton, in which he complains of being unsuccessful in the cultivation of that interesting tribe of plants, he seems to be anxious for any information on the subject, and from the experience which I have had in their cultivation, I hope to be able to point out a few of the errors which that writer may have fallen into in his management.

Your Correspondent in the first place complains of his Heaths getting naked, or more properly speaking, rusty; this I should say is from the effects of drought, being crowded close together, on the pots being exposed to the powerful rays of the sun; if the pots are placed in the open air as is the practice with the most of our hardy G. H. plants (this is always the case with the more tender sorts of the Ericææ: the sun acts so powerfully on the pots when exposed for any period of time, as to dry the ball completely, and allowing the plant to be watered with the greatest care, the substance of peat soil being of a peculiar drying nature, the water often runs off, if the plants are potted high, without penetrating to the centre of the ball; this is the cause of heaths going off so suddenly. When once allowed to get

completely dried up, you may water them and go away, fancying that all is right, when, perhaps, if you were to turn out the plant the water has not penetrated one inch, the next day comes a hot and burning sun, your plant stands exposed as usual, and by the action of the sun the pot has succeeded in completely drying up the ball by mid-day, the plant stands so until night, and for six hours it is actually dying for moisture.

To remedy this defect I would recommend your correspondent to observe the following rule—if he is in the habit of placing his Heaths in the open air, never to do so without plunging the pots to the brims in cinder ashes or sand, the former being the best, not being liable to be infested with worms, keeping the ashes in a moist state by watering, as also giving each plant a regular supply every night, according to its state of dryness. Heaths are much benefited by being partially shaded, when set in the open air, by canvas or any light substance, as the sun acts so powerfully on the foliage, when first taken out of the house, but if your correspondent has a house principally for Heaths, I would say, do not take them out at all, except a few, so as the rest may not be over crowded, leaving air at all times, except in very severe weather, or when cutting winds may occur, if the stage of the house stands high or much exposed to drying winds. When air is admitted to the house, I should recommend the pots to be protected by placing a quantity of (*Hypnum*) among the pots, keeping it moist by watering.

In potting his Heaths, he cannot follow a more successful plan than that practised by Mr. Macnab of the Edinburgh Royal Botanic Garden, which I should say has fully answered the object of that most scientific floriculturist, which is this, keep the ball or centre of the plant when shifting higher than the margins of each pot, and introducing small pieces of free stone round the ball, these pieces are very useful, as they retain the moisture in hot weather, as also absorb it if the plants be over watered, keeping a regular moisture in the ball; each pot should be filled with broken pieces of pot to the thickness of two or three inches, according to the size of the pots, to carry off the excess of moisture, which is injurious in very hot weather; placing some siftings of peat soil next to the drainage, before placing the plant into the pot or tub. If your Correspondent is not so fortunate as to have a supply of free stone, it may not be amiss to say,

that I have used broken pieces of pots in the manner recommended with the stones, with almost equal success, only care must be taken that the pot is soft, or what gardeners call a good pot, not over burnt.

J. F.

June 19th, 1827.

ARTICLE II.

ON THE CULTURE OF THE BALSAM.

BY SCRUTATOR.

ALTHOUGH several papers have been written on the cultivation of the Balsam, yet they are so very complicated, that I am induced after a long experience, to forward to you a method of treatment, which I have found to be very successful and simple. The seeds (which should at least be from four to ten years old) must be sown in a hot bed about the middle or latter end of March, in a soil taken from a cucumber bed, in quantities of half sandy loam and rotten dung, which has been turned over two or three times during the winter. I suffer the plants in the seed-pots to be drawn up about three inches when they are planted off singly into very small pots, filled with the same soil, they must remain until the roots are seen shooting through the hole at the bottom of the pot, when they must be repotted into the next size, and so on continually till they fill pots of the largest size. Care should be taken to keep the plants as near to the glass as possible, and particularly remember to take off the first buds, which strengthens the plant amazingly, and make them blossom more double though later. I generally shade the plants whenever the sun shines very hot upon them, to prevent scorching the leaves. I also use clear pond water after it has been in the frame six hours. By pursuing this course I have been singularly successful in raising Balsams so as to astonish every person in this neighbourhood, and I hope other persons will be as fortunate as myself, after they have read my method.

SCRUTATOR.

P. S. Should the above communication be approved of, I shall with great pleasure inform you of the course of treatment I have

adopted with the *Ipomopsis elegans*; my plants are looking very fine, and are showing for blossom.

In return, I should like to see a list of greenhouse plants of the greatest beauty, stating their colours, the time of blowing, and also the method of propagating them. I should also like to know how to impregnate the *Thunbergia alata alba*, as I have a fine plant, and wish to propagate more from it.*

June 19th 1837.

[* Very readily by cuttings of young shoots being inserted in sand. We should be greatly obliged by the Article on the *Ipomopsis* at an early opportunity—CONDUCTOR.]

ARTICLE III.

AN ADDITIONAL LIST OF NEW CAMELLIAS.

BY MR. GEORGE JOSEPH KAMEL.

My two former communications being favourably received, and by you inserted in Vol. III. and IV. of the Cabinet, I forward you an additional list of new varieties. On page 200 of Vol. IV. it is stated that Camellias are two years coming up from seed, an assertion I can contradict, having plants six inches high in six months, by sowing the seed as soon as ripe, and placing it in the stove.

BRITISH AND CONTINENTAL HY-
BRID VARIETIES WITH DOUBLE
WHITE FLOWERS.
Allnuttia *Graya*
lepida
princeps
Rives
rosæflora

SINGLE WHITE FLOWERS.
Palmerii

VARIEGATED FLOWERS.
Adonida
Cloweana
Kingii

DARK RED FLOWERS.
Allnuttia superba
amœna
Berleziana
cruenta

PALE OR LIGHT RED FLOWERS.
Bealeii
foliosa
Spofforthia
superba
Roalina

SIMPLE RED FLOWERS.
amplissima simplex
Helvola
incomparabilis
paradoxa

On page 154 Vol. IV. for *Flosackia* *Hosackia*.

ARTICLE IV.

A LIST OF FOREIGN FERNS WHICH HAVE STOOD THE OPEN AIR OF THIS COUNTRY IN NOTTINGHAMSHIRE DURING THE WINTER OF 1836 and 1837.

BY J. R.

AGREEABLE to my promise of last year I forward you a list of Foreign Ferns which having stood the winter of 1836-7 out of doors may lay some claim to be considered hardy—they having had only the protection of fallen leaves, and to prevent the blowing away, of which a few spruce fir boughs were pricked in the ground around the plants.

If others of your correspondents have made similar trials, I hope they will favour your readers with the result, and indeed any remarks on Ferns, from them will be acceptable, especially as I am aware that with some of your readers in the south and west of England, Ferns are cultivated.

June 15th 1837.

J. R.

Adiantum pedatum	Pteris falcata
Allantodia australis	" arguta
Aspidium tuberosum	" caudata
" auriculatum	" serrulata
" atomarium	Polypodium clatum
" marginale	Physematum molle
" bulbiferum	Woodwardia radicans
Blechnum gracile	Woodsia perreanniana
Doodia caudata	Aspidium acrostichoides
Dickinsonia pilosiuscula	Struthiopteris germanica
Osmunda interrupta	" Pennsylvanica
Onoclea sensibilis	Aspidium æmulum
Pteris hastata	Pteris longifolia

ARTICLE V.

ON STIKING CUTTINGS OR SLIPS OF PLANTS IN WATER.

BY AN OPERATIVE.

I TROUBLE you with these few remarks, but hope they will not exclude valuable matter: having acted upon the suggestion of one

of your Correspondents regarding striking cuttings in water, I have tried a great many Dahlia roots this spring in water, and every shoot has struck freely, excepting where I lightly fastened a bit of brass round the stem to keep the lower leaves close, that the shoot might go into the phial, the lower leaves of which rotted. I cut the shoots in the usual way, close under a joint, and then hang the bottles, which ought to be wide-mouthed, some green, some white glass, against a wall, under the skylight of a warm work-shop in London, in the full glare of the sun, from the first moment of putting them in the water. A shoot of an old root, the Springfield Rival, I put in the latter end of May, I noticed particularly on the 12th day after putting it in had emitted one root, and on the fifteenth, it had four fibres or small lobes, an inch long, the growth being so rapid after it starts.

Fuschia gracilis I am trying the same way, and find them strike in the same time, this way may be slower than the ordinary way of hot-bed strikings, but I think it will suit those, who like me, have a hot-bed at the beginning of the season, but cannot command one whenever occasion may require it.

AN OPERATIVE.

ARTICLE VI.

METHOD OF OBTAINING FLOWERS OF DIFFERENT COLOURS FROM THE SAME STEM.

BY AN AMATEUR.

I have tried the following process with great success; and if you think it worthy a place in the *Floricultural Cabinet*, it is at your service. Split a small twig of elder-bush lengthways, and having scooped out the pith, fill each of the compartments with seeds of flowers of different sorts, but which blossom about the same time; surround them with mould, and then tying together the two halves of the twig, plant the whole in a pot filled with earth properly prepared. The stems of the different flowers will then be so incorporated as to exhibit to the eye only one stem, throwing out branches covered with flowers analogous to the seed which produced them.

AN AMATEUR.

PART II.

REVIEW.

THE FLOWER GARDEN, *including Directions for the Arrangement and Cultivation of all Garden Flowers, &c.* London, Orr & Co.

We have received the first part of this publication, June, 1837, and find it contain some useful and interesting remarks. The following extract on Rock Work, is a specimen, of its style.

We recommend the Work to our readers. The Author has not stated whether the parts in future, are to come out monthly, quarterly, or annually.

"The Chinese, who are partial to imitations of the grander features of nature, in miniature, frequently in the smallest area of a town court-yard, have rough shapeless stones thrown together in heaps, to represent rocks, with plants growing in the crevices. It is by no means unusual, in our own suburban gardens, to see similar fanciful, and incongruous, heaps of stones, chiefly irregularly formed flints, the sorizæ of forges, and large bits of coke from the gas works, covered with sedums, house-leek, and other plants which may be made to grow in such situations. Most of these are planted, and executed in the worst taste.

"The finest specimen of this kind of work which was ever, perhaps, executed, was laid out by Mr. Forrest, now of the Kensington Nursery, for his Grace the Duke of Northumberland, at Sion House. The imitation is, indeed, so complete, that when the back of the visitor is turned to the superb conservatory, he might almost fancy himself at the entrance of a Highland glen. The turf on the edge of this rock-work is in parts studded with moss, while little knolls, which nobody would doubt being real ant-hills, are covered with wild thyme and hare-bells. The expense of this, however, must be enormous, as there are blocks of granite of several tons weight; and few amateurs, we think, would attempt to rival this. But when tastefully planned, and well executed, rock-work may be made a very interesting feature of a flower-garden. The following remarks on the subject from "Chambers' Edinburgh Journal," will give the reader some good hints, which he may adapt to circumstances and situation, should he be inclined to construct rock-work for flowers.

"The rocky ravine, the mountain's brow, and the sea-beach, are the most fertile sources of materials for a rockery; and it is necessary, in selecting them, to pay minute attention to the manner in which the various rock are deposited in their several beds, and also to the mosses, lichens, and ferns, which are congenial to them; for, in proportion as the selector shall succeed in imitating nature, will he please his own eye, and gratify his friends. Having fixed on a quarter whence materials are to be procured, the next object is to find out an intelligent workman, who may execute the charge entrusted to him with care. On this a good deal depends; and some pains should be taken to make him understand thoroughly what is wanted. The size of the stones should always be varied, but proportioned upon the whole to the intended size of the rock-work. A number of detached erections never look well; they are stiff and artificial. The whole should show an evident and well-defined connection; and, with regard to the stones, the greatest possible variety in form and size should be studied. The

foundation should consist of mounds of earth, which answer the purpose as well as any more solid erection, and will make the stones go farther. Rocks of the same kind and colour should be placed together; if intermixed they seldom wear a natural appearance. A dark cave, penetrating into the thickest part of the erection, is not very difficult to construct, and, when encircled with ivy, and inhabited with a pair of horned owls, which may be easily procured, it will form a most interesting object. Rock plants of every description should be profusely stuck around, and, in one short twelvemonth, the whole scene will exhibit an impress of antiquity far beyond anticipation. The whole should be enclosed with forest-trees of large foliage, that the visitor to the scene may step upon it unexpectedly. Water in all cases adds greatly to the general effect, and a small pond permits the construction of a rocky island, which should be formed with jutting points, for the sake of the reflection in the water. By a simple expedient, streams of water may be made to issue from the rocks, or spout into the air, and fall in beautiful cascades. This is done by placing a cask in an elevated spot at a little distance, and leading under ground, pipes to the spot required, where, by service pipes, anything wished by the erector may be easily managed. A cask holding thirty-five gallons might keep such falls playing for an hour, and might be kept out of sight. A pond, also, would permit the cultivation of native and foreign succulent plants; and gold fish and perch might be introduced, with a water-hen or two, and a few of the ducker species of sea-fowl. In absence of a pond, or any similar supply of water, a pump-well might still be made, without much labour, to enliven the rockery with water falls.

"The whole undertaking, when completed, will present a field of varied and interesting study, and more than compensate for all the attention and outlay bestowed upon it. The aquatic and rock plants which formerly were 'far to seek and ill to find,' will thus be brought within the range of everyday observation; the wagtail, oxeye, and stonechatter, will be attracted to the spot, not, perhaps, because they are lovers of the picturesque, but because they find everything here suited to their nature; and colonies of the wild bee will soon be seen, and heard humming on their winged instruments around the interstices of the rocks, and heavily laden with their winter store. These are all objects which not only please the eye, but from which man may derive grave lessons, that, well digested, may make him a better and a wiser man."

"On the steep edges of woods where the falling down of a brow has exposed the more massive roots of large trees, and more in forests where trees have been torn up by the roots, moss frequently accumulates, annually dies and soon forms soil, where we may sometimes meet with pretty native flowers, such as wood-sorrel (*Oxalis acetosella*), wood anemone (*Anemone nemorosa*), elegant St. John's wort (*Hypericum pulchrum*), and the like. This accidental feature of natural woods has been imitated in gardens, by collecting, in some border or compartment, old stumps and roots of trees, and throwing, on such parts of them as will permit it to lie, compost fitted for the growth of the plants intended to be cultivated there. It is necessary to remark, however, that as the soil will be necessarily shallow, it will require plants that will thrive without much water.

"The authoress of the *Florist's Manual* says that "fragments of stone may be made use of, planted with such roots as flourish among rocks, and to which it might not be difficult to give a natural appearance, by suiting the kind of stone to the plant which grows naturally among its debris. The present fashion of introducing into gardens this kind of rock-work, requires the hand of taste to assimilate it to our flower borders, the massive fabric of the rock being liable to render the lighter assemblage of the borders diminutive and meagre. On this point caution only can be given, the execution must be left to the elegant eye of taste, which, thus warned, will quickly perceive such deformity. I must venture to disapprove of the extended manner in which this mixture of stones and plants is sometimes introduced

—not having been able to reconcile my eye, even in gardens planned and cultivated with every advantage which elegant ingenuity can give them, to the unnatural appearance of artificial crags of rock and other stones interspersed with delicate plants, to the culture of which the fertile and sheltered border is evidently necessary,—being decided that nothing of the kind should be admitted into the simple parterre, that is not manifestly of use to the growth of some of the species therein exhibited.'

FLOWERING PLANTS SUITABLE FOR ORNAMENTAL ROCK-WORKS.

"The compost used for rock-work, should be prepared according to the nature of the soils particularised in this list.

HARDY ANNUALS.

Calycea Madwort. *Alyssum calycinum* Flowers July and August, in sandy peat soil.
Hairy Madwort. *Alyssum hirsutum*. Flowers June and July, in common garden soil
Nail-wort-leaved Pell flower. *Campanula drabacfolia*. Flowers July and August, in sandy loam.
Violet Thlaspi Treacle Mustard. *Clypeola l'on Thlaspi*. Flowers May and July, in common garden soil.
Musk Heron's Bill. *Erodium moschatum* Flowers May and July, in sandy loam.
Prostrate Toadflax. *Linaria prostrata*. Flowers in June and July, in common garden soil.
Tangier Pieridium. *Pieridium Tingitanum*. Flowers in June, in common garden soil.
Mignonette. *Reseda odorata*. Flow-

ers from June till October, in rich mould.
Atocion Catchfly. *Silene Atocion*. Flowers May and July, in sandy loam
Small red Catchfly. *Silene rubella*. Flowers May and June in common garden mould.
Prickly Trefoil. *Trifolium echinatum*. Flowers June and July, in common garden mould.
Banatian Violet. *Viola Banatica*. Flowers in April and September, in rich garden soil.
Shore Violet, *Viola littoralis*. Flowers in June and July, in peat and loam.
Heartsense. *Viola tricolor*. Flowers all the summer, in common garden soil.
Tenore's Candy Tuft. *Iberis Tenoreana*. Flowers in June and July, in common soil.

BIENNIALS.

Rock Cethionema. *Cethionema saxatile*. Flowers in June and July, in common garden mould.
Throatwort-like Bell-flower. *Campanula cervicaria*. Flowers in July in sandy peat:
Thrysoid Bell-flower. *Campanula thrysoidea*. Flowers from June till August in sandy peat.
Common Carline Thistle. *Carlina vulgaris*. Flowers from June till September, in common soil.
Wallflower. *Cheiranthus cheiri*. Flowers in April and July, in rich mould.
VOL. V.

Hoary Stock. *Mathiola incana*. Flowers in May and November, in loam and peat.
English Scurvy grass. *Cochlearia Anglica*. Flowers in May, in common garden mould.
Danish Scurvy grass. *Cochlearia Danica*. Flowers in May and June, in common mould.
Long flowered Viper's Bugloss. *Echium macranthum*. Flowers in July and August, in common garden mould.
Violet-coloured Viper's Bugloss. *Echium violaceum*. Flowers in July

and August, in common garden mould.
Common Viper's Bugloss. *Echium vulgare*. Flowers in July and August, in loamy peat.
Garland Hedysarum. *Hedysarum coronarium*. Flowers in July and August, in common garden mould.
Pale Hedysarum. *Hedysarum pallidum*. Flowers in June and July, in sandy loam.

Alyssum Horehound. *Marrubium alyssum*. Flowers in July and August, in sandy loam.
Dwarf Mountain Germander. *Teucrium montanum*. Flowers in July and October, in common garden mould.
Lambert's Vervain. *Verbena Lambertii*. Flowers in July, in common garden soil.

PERENNIALS.

Clavenna's Milfoil. *Achillea Clavennæ*. Flowers in June and July, in loamy peat.
Mountain Milfoil. *Achillea montana*. Flowers from June till August, in common mould.
Roseate Milfoil. *Achillea rosea*. Flowers from June till August, in common mould.
Tomentose Milfoil. *Achillea tomentosa*. Flowers in May and October, in common mould.
Alpine Bugle *Ajuga Alpina*. Flowers in July and August, in common mould.
Pyramidal Bugle. *Ajuga pyramidalis*. Flowers in May and June, in sandy peat.
Alpine Ladies' Mantle. *Alchemilla Alpina*. Flowers in July, in common garden mould.
Smooth Ladies' Mantle. *Alchemilla glabra*. Flowers in July and August, in common mould.
Five-leaved Ladies' Mantle. *Alchemilla pentaphylla*. Flowers in July, in common garden mould.
Mountain Madwort. *Alyssum montanum*. Flowers in July and August, in sandy loam.
Alpine Madwort. *Alyssum Alpestre*. Flowers in July and August, in common mould.
Rock Madwort. *Alyssum saxatile*. Flowers in April and May, in sandy loam.
Wall Madwort. *Alyssum murale*. Flowers in April and May, in common mould.
Meadow Anemone. *Anemone pratensis*. Flowers in May, in sandy peat.
Alpine Anemone. *Anemone Alpina*. Flowers in July in sandy peat.
Siberian Anemone. *Anemone Sibirica*. Flowers in June in sandy peat.

Mount Baldo Anemone. *Anemone Baldensis*. Flowers in May, in sandy peat.
Rock Chamomile. *Anthemis saxatilis*. Flowers in July and August, in common mould.
Mountain Kidney Vetch. *Anthyllis montana*. Flowers in June and July, in sandy loam.
White Mountain Kidney Vetch. *Anthyllis montana alba*. Flowers in June and July, in sandy loam.
Alpine Columbine. *Aquilegia Alpina*. Flowers in May and June, in common mould.
Siberian Columbine. *Aquilegia Sibirica*. Flowers in May and July, in common garden soil.
Canadian Columbine. *Aquilegia Canadensis*. Flowers in April and May, in sandy peat.
Pyrenean Columbine. *Aquilegia Pyrenaica*. Flowers in May and July, in sandy peat.
Alpine Wall-cress. *Arabis Alpina*. Flowers in March and May, in peat and loam.
Stone Wall-cress. *Arabis saxatilis*. Flowers in May, in common garden mould.
Mural Wall-cress. *Arabis muralis*. Flowers in May and July, in common mould.
Rock Wall-cress. *Arabis petraea*. Flowers in May and July, in common mould.
Daisy-leaved Wall-cress. *Arabis bellidifolia*. Flowers in May and June, in peaty loam.
Mountain Sandwort. *Arenaria montana*. Flowers in April and July, in sandy peat.
Rock Sandwort. *Arenaria saxatilis*. Flowers in July and August, in sandy peat.

Mountain Arnica. *Arnica montana*. Flowers in July and August, in peat and loam.

Icy Arnica. *Arnica glacialis*. Flowers in July and August, in peat and loam.

Swiss Arnica. *Arnica Helvetica*. Flowers in June and July, in rich mould.

Greenland Wormwood. *Artemisia Groenlandica*. Flowers in June, July, and August, in sandy loam.

Canadian Milk Vetch. *Astragalus Canadensis*. Flowers in June and July, in sandy loam.

Lapland Diapensia. *Diapensia Lapponica*. Flowers in April, in sandy peat.

Deltoid Aubrietia. *Aubrietia deltoidea*. Flowers in March till May, in peaty loam.

Purple Aubrietia. *Aubrietia purpurea*. Flowers in May and June, in common mould.

Foxtail Betony. *Betonica alopecurus*. Flowers in July, in common garden mould.

Alpine Braya. *Braya Alpina*. Flowers in June, in peaty loam—a curious and interesting plant.

Carpathian Bell-flower. *Campanula Carpatica*. Flowers in July and August, in peat and loam.

Hill Bell-flower. *Campanula collina*. Flowers in June and July, in peat and loam.

Russet Bell-flower. *Campanula pulla*. Flowers in June and July, in common mould.

Dwarf Bell-flower. *Campanula pumila*. Flowers in June, in peaty mould.

Garganian Bell flower. *Campanula garganica*. Flowers in June, in peaty mould.

Round-leaved Bell-flower. *Campanula rotundifolia*. Flowers in July, in common garden mould.

Rock Bell-flower. *Campanula saxatilis*. Flowers in May and August, in peaty loam.

Alpine Bell-flower. *Campanula Alpina*. Flowers July, in peat and loam.

Asarum-leaved Cardamine. *Cardamine Asarifolia*. Flowers in July and August, in peaty loam.

Broad-leaved Mouse-ear. *Cerastium latifolium*. Flowers in June and July in common mould.

Alpine Mouse-ear. *Cerastium Alpinum*. Flowers in July, in peaty loam.

Spring Phlox. *Phlox vernalis*. Flowers in February, in common mould.

Sedum-like Cherleria. *Cherleria sedoides*. Flowers in June and July, in common mould.

Dark-leaved Golden-flower. *Chrysanthemum atralum*.

Rock Scurvy-grass. *Cochlearia saxatilis*. Flowers in June and July, in sandy loam.

Hill Pink. *Dianthus collinus*. Flowers in July and September, in sandy loam.

Hyssop-leaved Pink. *Dianthus hyssopifolius*. Flowers in June and October in common mould.

Alpine Pink. *Dianthus Alpinus*. Flowers in June and July, in sandy loam.

Mountain Pink. *Dianthus montanus*. Flowers in June and September, in sandy loam.

Rock Pink. *Dianthus petræ*. Flowers in July and August, in sandy loam.

Feathered Pink. *Dianthus plumarius*. Flowers in June and August, in sandy loam.

Aizoon-like Draba. *Draba aizoides*. Flowers in February and April, in sandy loam.

Ciliate-leaved Draba. *Draba ciliaris*. Flowers in February and April, in sandy loam.

Cuspidate Draba. *Draba cuspidata*. Flowers in February and April, in sandy loam.

Alpine Draba. *Draba Alpina*. Flowers in April and May, in common mould.

Rock Draba. *Draba rupestris*. Flowers in May and July, in sandy loam.

Alpine Willow-herb. *Epilobium Alpinum*. Flowers in June, in sandy loam.

Mountain Willow-Herb. *Epilobium montanum*. Flowers in June and July, in common mould.

Alpine Barren-wort. *Epimedium alpinum*. Flowers in May and June, in peaty loam.

Alpine Hedge Mustard. *Erysimum Alpinum*. Flowers in May and June, in sandy loam.

Lancaster Crane's-bill. *Geranium Lancastriense*. Flowers from June till September in common mould.

- Crimson Crane's-bill.** *Geranium sanguineum*. Flowers from June till September, in sandy loam.
- Scarlet Avens.** *Geum Coccineum*. Flowers in July and August, in peat and loam.
- Pyrenean Avens.** *Geum Pyrenaicum*. Flowers in June and July, in peaty loam.
- Radiated Avens.** *Geum Radiatum*. Flowers in June and July, in common mould.
- Obscure Hedysarum.** *Hedysarum obscurum*. Flowers in July and August, in sandy loam.
- Alpine Hedysarum.** *Hedysarum Alpinum*. Flowers in July and August, in sandy loam.
- Sand Cudweed.** *Helichrysum arena-rium*. Flowers in July and September, in sandy peat. This genus was formerly, *GNAPHALIUM*, and is known in many gardens by that name.
- Fair St. John's wort.** *Hypericum pulchrum*. Flowers in July, in peat and loam.
- Mountain St. John's wort.** *Hypericum montanum*. Flowers in July and August, in common mould.
- Alpine Toadflax.** *Linaria Alpina*. Flowers in June and July, in sandy loam.
- Rock Toadflax.** *Linaria saxatilis*. Flowers from June till September, in sandy loam.
- Pyrenean Petrocallis.** *Petrocallis Pyrenaica*. Flowers in May and June, in peaty loam.
- Beautiful Cinquefoil.** *Potentilla formosa* of Don, *P. Nepalensis* of Hooker. Flowers in June and July, in common garden mould.
- Rock Cinquefoil.** *Potentilla rupes-tris*. Flowers in May and June, in common mould.
- Rock Cinquefoil.** *Potentilla petrae*. Flowers from May till July, in common mould.
- Arctic Bramble.** *Rubus arcticus*. Flowers in May and August, in peaty loam.
- Rock Bramble.** *Rubus saxatilis*. Flowers in June, in common mould but should be reserved for large aggregations of Rock Work, as should *R. arcticus*.
- Aizoon Saxifrage.** *Saxifraga aizoi-des*. Flowers in June and July, in sandy peat.
- Snowy Saxifrage.** *Saxifraga nivalis*. Flowers in June and July, in sandy loam.
- Opposite-leaved Saxifrage.** *Saxifraga oppositifolia*. Flowers in March and April, in sandy peat and loam. A more suitable and beautiful plant cannot be appointed to adorn the brow, and enliven the bosom of artificial rock-work.
- Rock Saxifrage.** *Saxifraga petrae*. Flowers in April and May, in sandy loam.
- Moss-like Saxifrage.** *Saxifraga hyp-noides*. Flowers in April and June, in decayed stone or sand, with peat.
- Podolian Schivereckia.** *Schivereckia podolica*. Flowers in June and July, in sandy peat.
- English Stone Crop.** *Sedum Angli-cum*. Flowers in July and August, in common mould.
- Corsican Hedge Nettle.** *Stachys Cor-sica*. Flowers July and August, in common mould.
- Imperato's Orpine.** *Telephium Impe-rati*. Flowers in June and August, in sandy loam.
- Rock Valerian.** *Valeriana saxatilis*. Flowers in July, in common mould.
- Mountain Valerian.** *Valeriana mon-tana*. Flowers in June and July, in common mould.
- Rock Veronica.** *Veronica saxatilis*. Flowers in June in common mould.
- Scarlet Vervain.** *Verbena melindris*. Flowers all the summer, in light rich mould.
- Common Indian Fig.** *Opuntia vulga-ris*. Flowers in August, in sandy loam.
- Large flowered Violet.** *Viola grandiflora*. Flowers in May and August, in peaty loam.
- Rock Violet.** *Viola lutea*. Flowers in May and July, in peaty loam.

RULES.

- Twisted Garlic.** *Allium flexum*. Flow-ers in July, in common mould.
- Pyrenean Fritillary.** *Fritillaria Pyre-naica*. Flowers in May and June, in common mould.
- Pyrenean Star of Bethlehem.** *Ornitho*

golum Pyrenaicum. Flowers in June and July, in common mould. Little Wood-sorrel. *Oxalis acetosella*. Flowers in April and May, in common mould.

Violet-coloured Wood-sorrel. *Oxalis violacea*. Flowers in May and June, in sandy peat."

SCIENCE OF BOTANY.

Continued from page 166.

"In most plants which do not drop their seeds around themselves, the wind is the leading agent in dispersing the seeds, being often assisted by the great lightness of the seed, by some appendage, such as wings or feathers (as in willow-herb, in dandelion, and in thistle, and the rest of the syngenesious tribe, which aid the wind in wafting the seed to a distance, or by the pericarp dehiscing at the upper part and sides, so that the seeds do not fall out, but are shaken or blown out by the wind. In other cases as in the broom (*Cytisus*), the balsam, (*Impatiens*), the *Oxalis*, there is a mechanical contrivance in the pericarp or seed which has the effect of a spring, in projecting the seed, when ripe, a distance from the parent plant.

"The use of these contrivances for dispersing seeds is obvious. They would choke each other in germinating close together, if they simply fell to the ground, and be thus lost or wasted. When the parent plant remains, (as in trees), they would be superfluous at the spot where there is already a plant of the same kind; but being dispersed, the seeds are carried abroad and get room to germinate.—They grow up and fertilize other places, and thus perpetuate the species, and increase the useful products which the plant may yield to the animal creation.

"Animals are frequently the means of the dispersion of seeds. Rivers and even seas also aid in spreading seeds.

"New plants arise from three sources, 1st, from seeds, which when placed in a fit situation, become new plants, of the same species as that which produced them, though frequently of a different variety. Plants are divided into Genera, Species, and Varieties. Each genus includes many species, and, each species many varieties. The varieties of any species differ in particulars which are not deemed of much importance, such as colour, size, &c. and a seed always produces a plant of the same genus and species as that of the parent, but frequently of a different variety. The commencement of the growth of the seed is called germination. 2nd, From buds, which are also capable of producing new plants. In this case, it is always the same variety that is produced. 3d, From slips or branches, which, when treated in a particular manner, are capable of becoming entire and independent plants, when separated from the parent. This is called propagation by slips or layers; and in this case also, we always obtain the same variety. This latter mode might be included along with the second, thus making two principal sources of vegetation—seeds and buds.

GERMINATION.

"A perfectly formed seed may be considered a young plant, the vital energies of which are in a dormant or latent state, but ready to be excited to action when the proper stimuli are applied; and containing a quantity of matter in a state to be easily formed into proper nutriment, and applied to its support before it is able to provide for itself.

"Seeds possess a great quantity of carbon. This substance, by its antiputrescent qualities and hardness, prevents the seeds from undergoing putrefaction, and thus preserves it for a great length of time. All that is necessary for preserving seeds is, to prevent germination and putrefaction. For

this purpose, they must be carefully excluded from the action of heat and moisture, and other chemical agents. Seeds retain their vitality for a very long period—for hundreds, or even thousands of years. Seeds which have been proved to have been not less than one thousand eight hundred years old, have germinated and produced thriving plants! and plants have appeared, on turning up the ground in some situations—the seeds of which are conjectured to have been buried a much longer period.

“Four conditions are necessary for the process of germination, the presence of water, of heat, and of air, and the exclusion of light.

“Water softens the integuments, and renders them capable of being burst by the swollen embryo; dissolves the nutritive matter contained in the seed thus reducing it to a fit state to be absorbed for the nutrition of the embryo; conveys in solution nutritive particles from other sources; and furnishes two important ingredients in the composition of vegetables.

“The air, by means of the oxygen which it contains, effects a chemical change on the farina of the seed. The oxygen combines with the carbon, and forms carbonic acid, which escapes; and thus the proportion of oxygen and hydrogen being increased by the expulsion of the carbon, the farina is converted into a semi-fluid substance, of a saccharine or mucilaginous nature, consisting of starch, gum, and sugar, well adapted for the nutrition of the plant in its infant state.

“Heat always promotes chemical combination and decomposition, and thus assists the action of the water in dissolving the hard parts of the seed, and that of the air in its part of the process. Most probably heat acts as a general stimulus to the absorbents in the seed. Seeds cannot be made to germinate in very cold weather, except by the application of artificial heat. Too great heat also checks germination, because it destroys the vitality of the seed.

“Light is unfavourable to germination, because it disposes to an accumulation of carbon in the seed, and a consequent hardening of the parts, or rather prevents the expulsion of carbon, and consequent softening of the parts, which if necessary they should be taken up and applied to the use of the plant. The seeds of red poppy and charlock remain in the ground and retain their vitality for a long period; hence they are frequent on new banks or newly upturned ground.

“From the operation of these causes, it will be seen why seeds planted too deeply in the earth do not germinate. The air has not access to them, and therefore, from the want of that important stimulus, they remain torpid. Hence it is that earth newly dug up frequently becomes covered with weeds, the seeds of which soon germinate when exposed to the air.

“Placing seeds at a certain depth in the earth excludes them from the access of light which is so injurious to germination; insures a supply of moisture, which would not remain with them were they placed at the surface; protects them from the wind, and from the attacks of animals, and enables the roots to take a firm footing in the soil.

“When the germination has commenced, the seeds become soft, and swell, oxygen is absorbed, and carbonic acid disengaged; the particles of the covering of the seed loose their cohesion, and it bursts to make way for the elongation of the embryo; the radicle elongates and descends, often attaining a considerable length before the gemmule has made any progress, and soon exercises its function of absorbing food; the cotyledons expand and become seminal leaves, which afford nourishment to the young plant in the first stage of its existence, by elaborating the sap, and wither when the proper leaves of the plant have unfolded, or remain under the surface, are gradually absorbed, and disappear; the gemmule or first bud gradually unfolds and enlarges; the leaves and stem appear, and we now have a young plant, a living being, able to provide its own sustenance, and to apply it to its increase, and to the formation of seeds to perpetuate the species.

“In the operation of malting, the object is to convert the farina of the

seed into sugar. For this purpose the seed is made to germinate, and this process is stopped (by heating) at that point at which it has been found there is the greatest quantity of saccharine matter in the seed. Were germination allowed to proceed further, the saccharine matter would be taken up for the nutrition of the young plants, and its nature completely altered.

PROPAGATION BY BUDS.

"Plants are propagated by buds, in four different ways. 1st, By means of the bulbs which grow at the base of the scales in the bulbous root, as in the Snowdrop or Lilly; these bulbs are soon detached from the parent bulb, and become independent plants. 2. By means of the bubils which grow upon the stem in the axilla of the leaves, as in the Corral-root (*Dentaria bulbiflora*), and in the Orange Lilly (*Lilium bulbiferum*), or in the place of the flowers, as in the Mountain Garlic (*Allium Carinatum*); these become detached, and form new plants. 3. By means of the buds or small bulbs which grow at the margins of the leaves in the Bryophyllum, and the bog Orchis (*Malaxis paludosa*); and 4. By means of the minute buds or eyes found in the tubercles of various plants as the potato (*Solanum Tuberosum*).

"In viviparous Alpine Bistart (*Polygonum Viviparum*) the pistil of the lowermost flowers generally become a bulb (bud) which begins to grow and throw out leaves before it falls off, and being detached, strikes root and forms a new plant. The seeds in this plant are seldom ripened. Sheep's Fescue Grass (*Festuca ovina*) frequently produces in place of flowers, buds, as fall off as bulbs, and vegetate; this is also the case with Alpine Meadow-grass (*Poa alpina*) and Sand Garlic (*Allium arenarium*). Plants which form buds or bulbs which they throw off, and which then vegetate independently, are called viviparous.

"All these resemble seeds in this, that when detached from the parent and placed in the earth, they produce new plants. They differ from seeds in not being formed by flowers; in not being able to preserve their vitality for such a length of time; in not having distinct parts such as radicle, gemmule, and cotyledons, being merely extensions of the substance of the parent; and in always producing the same variety. Hence one advantage of propagating the Potato by buds; we have found a variety well adapted for use as an article of food, and we can ensure its reproduction. If grown from a seed, a very different variety might be produced, which would not have the same nutritious properties. In fact, plants arising from buds, are regarded as a continuation of the same individual—hence they in time become exhausted and deteriorated.

PROPAGATION BY SLIPS AND LAYERS.

"Propagation by layers consists in surrounding a young branch with moist earth, in which case it throws out roots, and very soon becomes an independent plant. It is customary to make a small incision at the part placed in the earth, or to pass a ligature round it. This intercepts the descending sap, which, by being accumulated, excites the latent buds, and these being developed in the earth, become roots.

"Sometimes the branch is bent downwards and fastened in the earth, as in the Vine, which is always propagated in this way; and many plants propagate themselves naturally in this way, the stems or branches lying on the earth, and taking root where they come immediately in contact with it, as the Currant bush and Laurel. At other times the branches are surrounded with earth in its natural position, and detached when it has taken root.

"Propagation by Slips much resembles the preceding mode. The only difference is, that the branch or slip is detached from the parent before being made to put out roots. The slips or cuttings of most trees that have a light white wood, as the Willow, the Ash, or the Poplar, easily take root when placed in the earth; and indeed the Willow is reproduced chiefly in this

way. It is difficult to propagate by slips, woods which are very dense and contain much resin, as the Fir and Oak.

"These processes for the propagation of plants are, in many cases preferred to multiplying by seed. Propagation by slips or layers always produces the same variety, as that from which the slip is taken, so that we have a plant that produces good fruit by propagation in either of these modes, several may be raised bearing fruit equally good. The tree is always more speedy in bearing fruit when formed in this way, than when grown from a seed.

"It is an interesting fact, and which is turned to good account in the cultivation of fruit trees, that, when the tree is raised in this way, the number of seeds in the fruit is almost always less than when produced from a seed, so that more of the juices and strength of the plant are expended in perfecting this fruit. The Vine when raised from seed, has four seeds in each grape; but frequently only two when propagated by layers.

"The Sugar-cane, which is propagated nearly in a similar manner, bears no seed at all, but the other parts of the plant are richly developed. Thus also, the seeds of the plants mentioned before are rarely ripened; and in common Solomon's Seal (*Convallaria multiflora*), the berries are seldom ripened, the plant increasing much by root."

Outlines of Human Physiology. By HERBERT MAYO.

In lately perusing this new work, we found the following interesting account of an experiment to determine why the roots of plants shoot downwards, by the ingenious Mr. Young:—

"It is impossible not to be struck with the close analogy which holds between the phenomena of the irritability and movements of the sensitive plants and many of the instinctive motions of animals. The discrimination evinced by plants is a subject no less curious. Climbing plants stretch towards objects calculated to support them; a shrub when growing upon a wall, when it has exhausted the nourishment which its situation afforded, has been known to drop a long root to the soil below. The daisy, in rank grass, bears a flower upon a long stalk; on a close shaven lawn, its flower is sessile. These and similar instances have been occasionally ascribed to an instinct in plants; it is much more philosophical to suppose, that the growth of plants is determined by physical impressions alone, such as variations of moisture or temperature, and exposure to or deprivation of light: and that nature, instead of imparting perception to plants as their guiding principles, has attained her purpose by another method, having so framed and endowed the vegetable economy in accordance with the circumstances in which it is placed, that the common accidents of the elements and of the seasons are likely to bring it to perfection. Several remarkable examples go to prove the correctness of the preceding views, out of which it may be proper to adduce the following: it is well known that, in whatever position a seed is laid in the ground, the plumule invariably rises towards the surface of the soil, while the radicle, on the contrary, shoots downwards. Upon the hypothesis that physical impressions determine the growth of plants, we should expect to find that gravitation is in this instance the influential cause, or that the growth of the radicle necessarily follows the direction of a mechanical force or tendency to motion, while that of the plumule goes against it. Mr. Knight ascertained this solution to be just, by experiments, in which another force was made to supersede, or to co-operate with, that of gravity. Seeds of the garden bean, which had been previously soaked in water, were

attached at short distances along the circumference of a vertical wheel, which was made to perform more than one hundred and fifty revolutions in a minute. In a few days the seeds began to germinate. In their growth, the plumule of each tended towards the axis of the wheel, the radicle in the contrary direction. In this case, owing to the vertical rotation of the wheel, the influence of gravity is neutralised; in its place a centrifugal force was substituted, by which the growing seed was influenced exactly as before by gravity.

In another experiment, beans similarly prepared were attached to the circumference of an horizontal wheel, which was then set in rapid motion; the result was not less conclusive than in the former instance; the plumule of each seed was observed to grow in a direction upwards and inwards, which the radicle tended downwards and outwards, that is to say, in the diagonal the two forces, by both of which, according to the hypothesis, it should have been blindly influenced. From these and similar instances, it appears reasonable to conclude, that the vital endowments are limited to two; namely irritability, and some modification of chemical affinity. What an innumerable interval between their mode of existence and that of animals!

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. **BOLBOPHYLLUM COCOINUM.** *The Cocoa nut Bolbophyllum.*
[*Bot. Reg.* 1964.]

ORCHIDACEA. GYNANDRIA MONOANDRIA.

This species of Orchidææ was introduced into this country from Sierra Leone by Messrs. Lodiges. It was discovered upon the Cocoa-nut Palm. It has bloomed in the collections of Messrs. Lodiges, and Mr. Bateman at Knypersley. The petals are very narrow, serrated, of a pale flesh colour. The flowers are produced on a spike about six inches long.

2. **CHRYSTOSTEMA TRIPTERIS.** *Three-leaved.* [*Bot. Mag.* 3583.]

SYNONYMY. COREOPSIS TRIPTERIS. COMPOSITE. SYNGENESIA FRUSTRANEA.

This plant is an old inhabitant of this country, but not generally to be met with. It is nevertheless very ornamental for the flower border. It grows to about two feet high, blooms profusely. The flowers are of a light lively golden colour, having a purple disk. They continue in bloom from July to the end of the season. The plant may be procured at the public nursery and floral establishments. *Chrystostema*, from *chryso* gold; and *stemma*, a crown; referring to the colour of the flowers

3. **EPIDENDRUM NOCTURNUM; var. latifolium** [*Bot. Reg.* 1961]
BROAD-LEAVED NIGHT SMELLING EPIDENDRUM. ORCHIDACEA. GYNANDRIA
MONANDRIA.

The present variety has larger flowers than the original species, as well as the general habit of the plant being more robust. It has bloomed in the collection of the Duke of Devonshire at Chatsworth. The blossoms are highly fragrant at night. The sepals are of a greenish yellow, and the labellum of a yellowish white.

4. **ENCHARDIUM CONCINNUM.** *Neat.* [*Bot. Reg.* 1962.]

ONOGRARIA. TETRANDRIA. MONOGYNIA.

This annual plant bears some resemblance to the *Clarkia pulchella*, but not so handsome. It is, however, a neat and pretty flowering plant. The

flowers are not quite so large as the *Clarkia*, of a rosy-purple colour. It is a native of New California. *Euchardium* from *eucharis* in the sense of agreeable, in allusion to the appearance of the plant.

5. *PAVETTIA CAFFRA*. *South African Pavetta*. [Bot. Mag. 3580.

RUBIACE. TETRANDRIA, MONOGYNIA SYNONYM. *IXORA CAFFRA*

A native of South Africa. The plants blooms very profusely. The flowers are white, produced similar to the well known *Ixora coccinea*. It deserves a place in every collection of hot-house plants. *Pavetta*, the name of the plant in the Malabar language.

6. *PLATYSTEMON CALIFORNICUM*. *The Californian* [Bot. Mag. 3579

PAPAVERACEÆ. POLYANDRIA POLYGYNIA.

This neat little annual was sent from California by the late Mr. Douglas. The plant grows six or eight inches high, producing a profusion of flowers a good deal like the Wild Wood Anemone of this country, they are of a yellowish-white, *Platystemon*, from *platus* broad, and *stemon* a stamen, alluding to the breadth of the filaments.

7. *REHMANNIA CHINENSIS*, *The Chinese*. [Bot. Reg. 1960.

SCROPHULARIACEÆ. DIDYNAMIA, ANGIOSPERMIA. SYNONYM. *DIGITALIS GLUTINOSA*. *GERARDIA GLUTINOSA*.

The plant is nearly hardy, but succeeds best if kept in a cool greenhouse. It is a native of North China. The flowers resemble the Foxglove, but not so large. The limb is a dingy orange-yellow, and the tubular part is of a brown-purple.

8. *RHODODENDRON PHCENICEUM*, *variety Splendens*.

[Brit. Flow. Gard. 385.

This very fine variety has been raised by the impregnation of *Rhododendron phceniceum*, with *R. Catawbiense*. Mr. Wood, Gardener to Mrs. May, of Sydenham, has been the successful raiser of this splendid flowering plant. It blooms profusely, and the flowers being very large are showy; they are of a rich red-purple, spotted with darker colour. It will be a very ornamental plant for the greenhouse or conservatory, and deserves a place in every collection.

9. *SCHIZOPETALON WALKERII*. *Mr. Walker's*. [Brit. Flow. Gard. 387.

CRUSIFERÆ. TETRADYNAMIA SILIQUOSA.

A very singular flowering hardy annual, growing nearly a foot high, each branch terminating with white fragrant blossoms of a very curious cut form, producing a striking appearance. The pure white of the flowers, their singular form, and powerful fragrance at night, strongly recommend the plant to every flower garden. It is better to raise the plants in pots and transplant them, than sow in the open ground. Seeds may be obtained of the London Seedsmen. See the lists advertised in the *Cabinet* during the past spring months. *Schizopetalon* from *schizo*, to cut; and *petalon*, a petal, referring to the flowers.

10. *WIGANEIA CARACASANA*. *Coraceus Wigandia*. [Bot. Reg. 1966.

HYDROLEACEÆ PENTANDRIA DIGYNIA.

A very neat and handsome flowering hot-house shrub, growing six feet high. It has bloomed in the collection at the Duke of Northumberland's; the flowers are produced in profusion, in branching terminal clusters of three on each, the blossoms resemble some of the handsome *Solanums*, of a delicate

lilac colour, which continue for a long time. It highly merits a place in every stove collection. *Wiganda* in compliment to John Wigand, a Bishop of Pomerania.

11. *SISYRINCHIUM GRANDIFLORUM*, *Large flowered*. [*Brit. Flow. Gard.* 388.

IRIDÆ. MONADELPHIA TRIANDRIA.

The late Mr. Douglas sent this plant from the North West of America, near Columbia. It very far surpasses any other of the genus, in the size, as well as colour of its blossoms, which are of a rich purple colour, and produced in vast profusion. The flower stems grow to about nine inches high. It is cultivated in the rich collection of Mrs. Marryatt, at Wimbledon. The name of the plant originated from pigs being fond of the roots. From *rus*, a pig; and *rugches*, a snout.

12. *AZALEA SEYMOURI*, *Seymour's Azalea*.

[*Bot. Reg.* 1975.

This variety was raised some years since at the Hon. and Rev. W. Herberts, Spofforth, near Wetherby, Yorkshire. It had been raised from the seed of *Rhodora Canadensis*, the flowers of which had been impregnated with those of *Azalea Pontica*. The habit of the *Rhodora* is, that, the blossoms expand long before any foliage is produced, but the hybrid here noticed first pushed forth its foliage long before the flowers appeared. They are of a pale yellow colour, in form like the *azalea Pontica* but much less in size.

13. *BOLBOPHYLLUM SALTATORIUM*, *Dancing Bolbophyllum*.

[*Bot. Reg.* 1970,

GYNANDRIA MONANDRIA. ORCHIDACEÆ.

Messrs Loddiges's imported this species from Sierra Leone, and the plant has bloomed in their collection at Hackney.

14. *CALLIPRORA LUTEA*, *Yellow Flowered*.

[*Bot. Mag.* 3588.

ASPHODELEÆ. HEXANDRIA MONOGYNIA.

The late Mr. Douglas found this pretty flowering bulbous plant in Northern California. It is found to flourish freely in the open border, in the warmer parts of this country. The flowers are produced in a scape upon a stalk six inches high. The blossoms are of a pretty yellow colour, which appear from June to August. *Calliprora* from *Calliprora*, pretty face; alluding to the beauty of the flowers.

15. *COREAPSIS LONGIPES*, *Long Stalked*.

[*Bot. Mag.* 3586.

COMPOSITE. SYNGENESIA FRUSTRANEA.

Mr. Drummond discovered this showy species in Texas, North America. It appears to be intermediate between *C. verticillata*, and *C. tinctoria*. It appears to be annual or biennial. The flowers are a fine yellow colour, not dark in the centre: each blossom is full two inches across.

16. *SPARTIUM ACUTIFOLIUM*, *Sharp-leaved Spanish broom*. [*Bot. Reg.* 1974

LEGUMINOSÆ, DIADELPHIA DECANDRIA.

A probable variety of Spanish broom, the flowers are rather more lax than the original species. Seeds of it were sent from Turkey to the London Horticultural Society. It is a hardy shrub.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE CULTURE OF PRIMULUS, &c.—Will some of your obliging Contributors favour me with the best mode of cultivation, and soil, and treatment for the *Primula farinosa*, *longifolia*, *verticulata*, *cortusoides*, *minima*, and *integrifolia*.

Also, will you inform me where I can purchase *Convolvulus pentanthus*, and *Ipomoea Horsfollii*, good strong plants at a reasonable price.

Siratford, 10th May 1837.

[We have the latter plant at Downham Nursery, at a low price.—COND.]

REMARKS.

GAILLARDIA PICTA.—This very beautiful flowering plant, deserves a place in every flower garden, or greenhouse. Its very showy blossoms, produced in such profusion, render it a valuable acquisition.

MIMULUS HODSONII, a fine flowering variety, has been raised between *M. rosea*; and *M. cardinalis*. It has the habit of the latter, and the blossom of the former, being of a fine rose colour, but a superior shape to the flower of the original roses. It has been named *M. Hodsonii* in compliment to the superabundant of the Bury St. Edmund Botanic Garden. It has bloomed in the garden at that place.

MIMULUS CLAPTONIA.—A new variety raised by Mr. Law of the Clapton Nursery, between *M. variegatus* and *M. cardinalis*. The plant has the habit of the latter, and the flowers of the former, but of a deeper colour.

CLIANTHUS PUNICEUS.—We have seen many of this beautiful flowering plant, succeed admirably, trained against a south aspected wall, and against a trellis on a south border. In both situations the plants bloomed freely, and are protected by mats or reeds in winter. If turned in the open ground in summer, and be taken up for winter, it does well—Use a rich soil.

SOLANUM HERBERTIA.—This hothouse species now blooms; its fine blue flowers produce a beautiful appearance. It is the handsomest of the species we have seen, and well deserves a place in the plant stove. Mr. Young of Epsom has plants of it in bloom.

DEUTZIA SCABRA.—This handsome shrubby plant has produced its lovely white blossoms so profusely, as to strike the attention of all who have seen it in bloom. The racemes of blossoms being much like a syringe in miniature, or resembling the *andromeda pulverleata*, or *floribunda*. The beauty of a large bush of it, is beyond description; the plant being so cheap, of easy culture, and growing very freely, well deserves a place in every shrub border or greenhouse. It blooms admirably well when placed in a room.

MINOSA PROSTRATA.—This plant is admirably adapted for training around a wire trellis. Such as we noticed early this year in the Cabinet. Its long branches throwing out a great number of lateral shoots, which hang pendant

and produce a profusion of delicate lilac pink blossom, hanging in clusters. Being cheap and of easy culture, it deserves a place in every greenhouse, or to stand upon a lawn, or to train up a pillar, or against a trellis; &c.

ON THE COLCHICUM, ORCHIS, &c.—The single and the double Colchicums are beautiful, and give variety to our gardens at a late season. The popular belief, that the fruit or seed of Colchicum is produced previously to the flower, is wholly unfounded; and, as the peculiarity in the appearance of fructification of this plant, generally excite the curiosity of Florists. The orchis mascula, which from the rich purple of its petals, and dark-spotted leaves, merits a place among our cultivated flowers are rarely seen in gardens, it being generally supposed that there is some peculiar difficulty in removing the roots of this curious tribe of plants from their native situations of growth. I have in a former work hazarded the conjecture, that the Orchis, in removal, did not require different treatment from that necessary to be given to all bulbous plants under the same circumstances; and I have since confirmed the justness of this conjecture by experiment.

It is requisite that the leaves of all bulbous plants should be wholly decayed before their roots are transplanted, as, until the change has taken place, the process of growth in the annual renewal of the bulb continues in progress, and the growth of this new bulb is checked by any injury which the leaves of the old bulb may sustain. Nevertheless, as it is frequently expedient to remove bulbous plants while their leaves are green, and even during the time in which they are in flower, this may be safely effected, if done with proper precaution, and also the root may be preserved in a healthy state, although it will certainly be weakened. All bulbs, if transplanted while their leaves are in vigour, should be removed with as much soil as will adhere to the bulbs, and great care must be taken not to cut or bruise the root, or the root-fibres. When transplanted, their leaves should be carefully tied to a stick, and suffered to remain until they naturally fall from the plant. If bulbous plants, during their state of vigorous foliage, are sent to a distance, they should have the same attention given them, and the soil should be closely pressed round the bulbs, and their leaves nicely tied together, and the whole wrapped in sheet lead, which, by keeping them from the air, will prevent the evaporation of their juices, and preserve them for a week or ten days nearly as well as if they were placed in soil for that period.

We find the Orchis kind characterised as bearing two distinct bulbs, and the difficulty of removing any of the species from the fields into our gardens ascribed to some peculiarity in the plant. Also the rare circumstance of the autumnal Colchicum not ripening its seeds until the spring after their formation in the preceding autumn, has given rise to an unwarranted opinion that the fruit is produced previously to the expansion of the flower, and which, from want of a little farther investigation, has become an established popular belief.

I am desirous to rouse my sister florists to the exertion of seeing for themselves; and by shewing with how little trouble the errors mentioned above may be confuted, I hope to excite them not to acquiescence in the belief of any extraordinary fact, until they have examined the foundation on which it rests. I have annexed some representations of the bulb of the large purple Orchis mascula, which will fully refute the belief which obtains of that order of plants bearing double bulbs, and will also exhibit the extraordinary change which takes place in the form of the bulb from its early state of growth to the time it has attained perfect maturity; and respecting the difficulty of removal, I can aver from experience, that there will not be found any circumstance necessary to be regarded, but what occurs in the transplantation of all other bulbous flowers during the periods of their growth; and as the large purple Orchis will be found peculiarly ornamental in the borders of the mingled flower-garden, our trouble in bringing it thither will be well repaid.

As this Orchis is usually found growing in hay meadows, and the leaves having generally disappeared before the grass is cut, it is commonly expedient that it should be transplanted in a state of active growth, and I should recommend the removal of the plant to take place as early in the spring as its beautifully spotted leaves have attained about half their size; when, if it be taken up with a clod of earth completely enveloping the root, and carefully shaded, and occasionally watered, it will rarely fail of producing a vigorous flowering bulb the ensuing year, and might probably bloom the year of removal; but in order to strengthen the root, it will be better to pinch off the flower-stem as soon as it appears, as during the time of flowering a large portion of nourishment is drawn by the fructification from the old root, and consequently the newly forming bulb is robbed of its due share of sustenance.

FLORIST'S MANUAL.

LONDON HORTICULTURAL SOCIETY.

EXHIBITED AT THE ROOMS IN REGENT STREET.

July 4.—H. M. DYER, Esq. V. P. in the chair. Several presents were announced, but none were of particular importance. No papers were read, and the attendance was not numerous.

Mrs. Lawrence exhibited an extensive collection of plants. The most prominent object was *Brugmansia bicolor lutea*, a yellow variety, like the old *Datura arborea*, and narcoti, being used by the Mexican priests of Guatemala in the religious rites. The other plants was a beautiful specimen of *Gesneria farialis*; a superb tray of *Geraniums*; *Polygala cordifolia*, *Camphylia friclor* and a new species; a new white *Agapanthus*, *Pimelia decussata*, *Gesneria splendens*, *Lechenaltia oblata*, two species of *Polygalla* *Bracolata*, *Pimella Rosea*, and a tray of heartsease. The large silver medal was awarded for the collection.

Mr. Leveson Gower exhibited several double yellow *Roses* of great beauty. The growth of this rose is very uncertain, and its cultivation very difficult, as there is no plan to make the flower grow, it appearing as it could only be developed in certain places. The silver Banksian medal was awarded for the same. Mr. Slater exhibited a collection of *Iris*es and *Roses*, Mr. Hooker, of Brenchley, a very extensive variety of roses, and Messrs. Colley and Hill a very handsome collection of *Pelargoniums*.

Mr. Fairbairn exhibited five varieties of *Erica Ventricosas* named as follows:—*E. V. fragrans coccinea*, *E. V. superba*, *E. V. coccinea*, *E. V. fragrans*, and *E. stellata*, as also a curious plant *Erica Giraphaloides*. A silver Knightian medal was awarded. Mr. Bateman exhibited *Cychnoches ventricosum*, a curious orchideous plant, the flowers growing naturally pendant in a swan-like form, and *Stanhopea oculata*, the flowers of which were curved like the horn of an ox, having marks on the lips resembling eyes. The odour was somewhat that of concentrated *Vanilla*, which in a hothouse was very oppressive. For these the Knightian medal was awarded. Mrs. Marryatt exhibited a new Cape Bulb, grown under the protection of a frame, and a cut specimen of a new *solanum*.

Mr. Charlwood exhibited a part of an interesting and extensive collection of Cactaceous and Orchideous plants, collected by M. Deschamps, during a residence of seventeen years in Mexico. The appearance of many were extremely unlike any that had been previously seen, and they exhibited the effect of cultivation, it being a matter of taste which were most to be admired.

The flowers from the gardens of the society were *Clinton elegans*, a pale flower, and better than the *C. pulchella*, the flowers being in better perfection about a fortnight ago. *Penstemon venustus*, a hardy plant, brought by Mr. Douglas from north west America, easily cultivated, and one of the most beautiful of the species; *Æthionema Membranacea*, a plant well suited for a rock or dry places; *Ceanothus azureus albus*, a graceful white flower; *Eutroviscida*, a plant just beginning to be known, bearing beautiful blue flowers.

only to be rivalled by the Larkspur, hardy in the gardens, and easy of cultivation, and possessing the quality of living longer in water than any other cut flower; *Lychnis bungeana*, a hardy plant growing in the open air, from Russia, and the north of China, and *Antholyza grandiflora*, a beautiful bulb but not sufficiently known, the plant having grown in an open pit for several years without heat, and merely protected by a frame. The remaining flowers consisted of garden and China Roses; *Solanum asperolanatum*; *Crinum Amabile*, *Quisqualis Indica*, *Combretum purpureum*, *Alstromeria pulchella*, *Fuchsia discolor*, *Lupinus nanus*, *Collisina bicolor*, *Oxyum Chrysanthemoides*, *Gilia Achilæifolia*, *Hocksakia* Sp., *Eriophyllum cæspitosum*, and *Sedum azureum*.

FIFTH EXHIBITION(PUBLIC) OF THE METROPOLITAN SOCIETY OF FLORISTS AND AMATEURS.—August 24th.

DAHLIAS.—Best collection with name attached, no limit and open to all classes, gold Adelaide Medal, value 7l. 10s. Best fifty dissimilar blooms, by nurserymen and others, King William and Adelaide Medal, and small medals to all others the judges may think worthy, not exceeding one half of the stands exhibited. Best twenty-four in stands of the society similar prizes.

Best twenty-four amateur members, ditto. Best twelve amateur members growing under two hundred plants, ditto.

No amateur to exhibit in both classes.

SEEDLINGS.—As the amateurs appoint judges from the dealers, and the dealers appoint judges from the amateurs, the Committee will instruct such judges to select from the seedlings exhibited all flowers of first-rate quality without limit, and none other, for prizes, which will, in such cases, be the small Adelaide medal. The Committee will afterwards appoint competent persons to report to them whether any one or more of such flowers shall deserve a higher distinction, which the Committee hold themselves in readiness to award, even up to the gold medals, should they seem worthy of such distinction.

ROSES.—Collections of fifty bunches, for all classes, and twelve bunches for amateurs. Prizes and entries as in April.

FLOWERING PLANTS.—The best collection of any kind without limit. Large King William Medal, Adelaide Medal, and small ditto.

Entrance—Stands of Dahlias or seedlings, each 1s.; non-member's stands, 5s.; seedlings, 5s.

Notice of showing to be given on before the first Tuesday in August.

GRAND SALT-HILL ANNIVERSARY, SEPT. 2.

DAHLIAS.—One hundred blooms, dealers, gold medal, value £7. 10s.; one large medal, £3.; one Adelaide Medal, 30s.; small medals, 15s. to make up two-thirds of the number exhibited. Twenty-four blooms, dealers, similar prizes. Fifty blooms, amateurs or their gardeners, similar prizes. Twenty-four blooms, ditto similar prizes. Twelve blooms, amateurs growing under two-hundred plants, large medal, Adelaide Medal, and small medals to make up the number to two-thirds of the stands exhibited.

SEEDLINGS AS IN AUGUST.

ENTRANCE.—Members, 5s.; non-members, 10s. Seedlings—Members, 2s. 6d.; non-members, 5s.

Notice to be given on or before the first Tuesday in September.

Persons who win several medals in one day, or during the season, may add their value together, and have the amount in larger medals, or either of the gold medals.

At the conclusion of every show, an order for the medals, or the stipulated reduced sum of money, is to be delivered to the winners.

Circulars to the above effect were ordered to be forwarded to the members.

It was determined that, at their evening meetings, on the 1st and 3d Tuesday in every month, the Committee would distribute prizes for any production of extraordinary rarity or merit which shall be exhibited; such productions to be placed in the room before six o'clock; and such members of the Committee, as may be assembled within the committee-room, should after viewing the productions, retire again to their room to decide if any, and what rewards should be given. The chair to be taken, at the evenings meetings, at seven o'clock, when the prizes awarded should be delivered.

FLORICULTURAL CALENDAR FOR AUGUST.

GREENHOUSE PLANTS.—All exotic trees and shrubs belonging to this department, that are in want of large pots, or refreshment of new soil, should (if not performed last month) be immediately done. This is the proper time to propagate Aloes Sedums, and all others of a succulent nature, by means of suckers or bottom offsets; when detached from the parent, they should be potted singly into small pots, using light dry compost, and watering sparingly till they have taken root. Azaleas, the greenhouse kinds, will have firm young wood, insert them firmly in sand, and cover with a bell-glass. In the first or second week at farthest, inoculation may be performed on any kinds of the Citrus genus. Camellias to bloom early, should be put in a warm stove or greenhouse.

FLOWER GARDEN.—Due care must be taken respecting watering any kinds of annual, biennial, or perennial plants, that may be in pots. Propagate by means of slips, and parting the roots, of any double-flowered and other desirable fibrous-rooted perennial plants done flowering. Likewise increase by offsets the different kinds of Saxifrage. Auriculas should be cleared of all dead leaves, and shifted into fresh pots; prick out of the seed-bed seedling Auriculas and Polyanthuses, in a shady situation: seeds of both kinds may also be sown in boxes or pans. Carnations may still be layered, also Sweet-williams, the earlier in the month the better. Also plant out pink pipings, which were put in June. Sow seeds of all kinds of bulbous rooted plants in pans or boxes, such as spring Cyclamen, Anemonies, Ranunculuses, &c. &c. Those kind of bulbs wanted to increase should be taken up, if the leaves be decayed, and the offsets taken off. Transplant into nursery beds seedling, perennial, and biennial plants sown in spring. In dry weather gather those flower-seeds that are ripe of any desired kinds of autumn-flowering bulbs that yet remain unplanted.

Mignonette to stand the winter in pots, should be sown early in the month, have no fresh dung in the soil. Rose trees may still be budded. Double Rockets out of flower, should have the stems cut down, to cause new shoots to push, or the shoots in general, die. Calceolarias intended for late blooming should have the branches cut down, and be re-potted, or take off and pot offsets.

REFERENCE TO PLATE.

The very beautiful *Ranunculus* we give in this month's plate are seedlings raised by Messrs. Tyso and son, Wallingford, Yorkshire, and cannot be but much admired for their superior properties, we hope Messrs. Tyso and Son will be amply rewarded for their trouble.

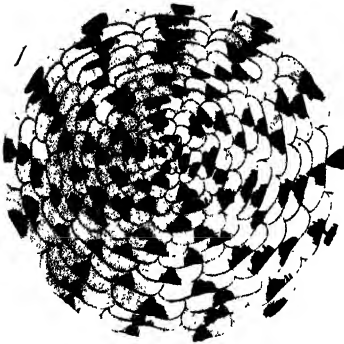
No. 1. DIADEM.
No. 2. GOVERNOR.

No. 3. ADOLPHUS.
No. 4. VICTORIA.

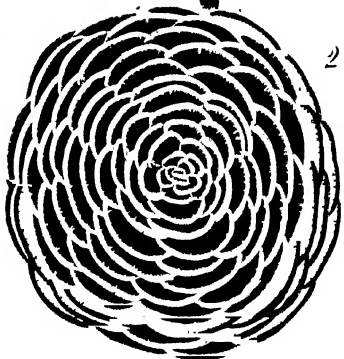
3



1



2



C.B.

1.

1877



Adelaide d'Orleans Rose

Anaëlis lilacina

THE FLORICULTURAL CABINET,

SEPTEMBER 1st, 1837.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

FURTHER REMARKS ON THE CULTURE OF THE TREE ROSE.

BY ROSA.

THE increasing number of splendid varieties of the much esteemed family of Roses, and their admission into every flower garden, and pleasure ground, being a desideratum, induces me again to resume the subject of their culture as standards. During the present summer I have been much struck with the increasing taste for their culture on lawns, and to exhibit their splendid heads in the centre of a flower bed, or back part of a border.

In remarking on the growth of a tree rose, I must observe that the rings round the bottom of both stem and branches are the depositaries of a dormant bud, which will not be called into action unless the buds above be injured, or unless the sap arise so profusely as to be unable to expend itself by the upper parts, in which case the buds below break out; though, indeed, they will occasionally do so, as the natural act of the tree in preference to rising higher. This is more observable in the wild rose than almost any other plant, and perhaps may, in some degree, explain the reason why budded roses are shorter lived than those on their own bottom; for any one who has at all observed the growth of wild stocks, must have noticed that the original head is seen

generally on hedges in much worse plight than the shoots which have been subsequently formed at its base. This tendency of the dog-rose to break out below, must be checked in two ways ; the first, by destroying every sucker and shoot as it starts, and the second, by finding full work for the sap above, and by giving it a free passage.

If then, in cutting the top of a tree at pruning time, you leave a couple of buds on every shoot of last year's growth, or three at most upon a very strong one, there will be quite enough to occupy the sap, keep the tree within bounds, make it much handsomer, save the sap the expence of maintaining old wood, and give it a free course. If there be more sap than enough, a fresh shoot will likely enough start from the crown of the graft, or the rings upon the first year's shoot, and increase the head of the tree, as well as bring you back with new wood nearer home—a matter always desirable as tending to keep the head from straggling.

Cutting to the lowest buds always leaves the sap with but a short channel to pass through, strengthens the branch below the buds, and is every way beneficial, if care be taken that a sufficiency be left to occupy the sap.

If the tree be not pruned at all, it will lose its shape entirely in a single year, afford little or no bloom the next, and eventually straggle to death.

Trimming the shoots has nothing essentially different in the manner of execution to trimming the stock ; in trimming to a bud, barely the thickness of a sixpence should be left above the bud, and the excision should form a slant about equal to that caused by dividing a square from angle to angle : if more were left above the bud, it would die down to the bud, and prevent the bark from healing over the wound ; in general, the line of the bud is the slant the knife should make it its passage through the shoot.

Cutting out old wood should always take place where it can ; the desirable point being to keep near home, as it is called ; when, therefore, your tree throws out a fresh and vigorous shoot, close to the base of an old branch which has straggled too far from the graft, cut out the old wood in March, close to its base, leaving the young shoot to supply its place, and receive its nourishment. This principle well applied, will always keep the trees in bounds ; but as this requires judgment, and cannot well be explained in

writing, take a lesson upon the subject, the first convenient opportunity, from a scientific gardener.

A tree well formed, with a promising head, and in health, ought, the spring succeeding the budding, to have a clean straight stem, no lumps or knots, one shoot quite at the summit, and two, or at all events, one other shoot as near as possible also to the top; if there are two shoots only, at opposite sides to each other; if three, forming a triangle, if more as nearly equidistant from each other, in the diameter of the stock as possible, (and here be it observed, that the more shoots, at the top of the tree, the handsomer and quicker is the head formed,) each with a bud inserted in it, close to the stem: and at the cross cut, where the bark of the bud usurps the place of the original bark of the stock, a sufficiency of sap ought to have exuded, not only to have joined the bark of the bud with the unmoved part of the bark above it, but also to have joined the separated part of the bark of the stock to the same place, and thus linked the two barks of bud and stock to the single bark of the stock above them.

The edges of the vertical slit in the bark do not heal by attaching themselves to each other, but the bark of the bud underneath them forms a connecting link, and the edges above mentioned perish insensibly away, leaving little or no scar behind. The second spring, the tree becomes more perfect, the extraneous parts of the stock, if any remain, are cut off, as well as those of the shoots, and the head so arranged as to throw its buds where they are wanted to make it round, even, and handsome. If, however some shoot be obstinately bent on growing in any direction, spoiling the appearance, and crossing the others, by no means remove it on that account alone, but place a little twig across from it to any other convenient branch, and confine it for the season as you wish it to be, removing the ligature in the succeeding spring, or even in the same autumn when the sap is down.

Lastly, the third spring the tree should show itself with all its wounds nearly closed, its buds strong, full, and healthy, and it should look perfectly natural, those parts of the shoots upon which the buds were placed more incorporated with the stock. The bark clean, no dead wood; and wherever a shoot has been shortened, the place so grown over as to leave no dis-sight, which will be the case for some time wherever any wood more than one season old is cut away, and a thin shoot of a single year

springs at the end of it. This is the reason why forest trees look so ill when shortened as old ones, viz. that the taper appearance is destroyed, and wood of five or six years' growth is continued by the shoot of a single spring, and thus a piece of wood, of the diameter of half a dozen inches, has a little mean looking shoot, or in all probability half a dozen, not thicker than horsewhips, at the end of it.

Whatever it is worth while to do, it is worth while to do well; work properly commenced does not require that constant superintendence which a bad beginning is certain to render necessary, and which eventually involves a much greater expenditure of time than any labour bestowed at the outset could have demanded.

Having thus brought our subject to a close, as to the operative part, in preparing and perfecting the tree, it may not be amiss to spend a few moments in the consideration of the effect expected to be produced by it when planted out.

There are three causes of beauty in a tree, shape, foliage, and flowers. Shape (to a certain degree) we artificially gain, foliage and flowers must depend upon the sort; the foliage is the more permanent, the flower the more striking. Planting out, then, must depend entirely upon the effect desired, and the taste of the party planting, as to variety of foliage, height, flower, its colour and continuity; a tree with rambling shoots suits one place, and with a cauliflower head another. The tree roses never look well in a round clump; they must have a single appearance, or be in some sort of line.

If your roses are to look, when finished, like a sloping bank, plant your heights in succession, viz. each under each; but if they are to have a less forced and regular appearance, and a more single and light look, leave out an intermediate height, as thus: a two-feet in front of a three-feet, &c.

Be it observed, that a three to four foot standard is most in keeping with the head it carries, and being nearer the ground, has a very natural and steady effect, and in confined places, it is unquestionably best in its appearance; but if the tree is to be distant from the eye, or the shrubbery, or walk be large and increasing indistance, a four-foot standard is certainly more distinguishable, and has a much greater effect.

A foot standard is of little or no use, except it be intended to approach the edge of a border, or is grafted for the conveni-

ence of affording nosegays or increasing the quantity of the plant placed upon it.

The heights most in use having been shown, it may be remarked, that for a weeping rose to stand singly, (perhaps surrounded with a wire guard and creepers upon it to have a more marked effect,) you cannot find a stem too high, if it be proportionally strong. A fine plant of this sort, six, seven, or even eight feet high, budded with a noisette, or boursalt, looks beautiful, and its long free branches, covered with clusters of roses, have a wild and luxuriant appearance, which give a distinct character to a tree budded in this way.

Thus having arranged where the plants are to be, and having made the earth good all around, stake up each tree with a neat, clean hazel stake, (unless the stock be so strong as not to require it,) saw off the top level with the top of the wild stem exactly, a matter that conveys a great air of neatness, and with a piece of bass, or better a small strip of pitched rope, attach your tree to the stake.

ARTICLE II.

A LIST AND DESCRIPTION OF CARNATIONS,

BY PENSEE,

(*Continued from p. 132.*)

PICCOTEES.

WOOD'S AGRIPPINA. (*purple.*)

I BEFORE alluded to this flower, which I designated "The Prince of Piccotees, I therefore give it first place in my remarks. It is a model by which I would recommend judgment to be formed. The leaf, a beautiful white, is perfectly round, or what is termed rose-leaved, is delicately edged with a brilliant purple, so equally distributed, that Nature's best artist seems to have been employed on the work, and so well has he performed it, that I trust he is at the present time most busily employed on a seed bed of mine, now coming into bloom; though I imagine, from the number and goodness of the flowers raised by Wood, that he keeps this first rate artist in his constant employ.

JEEVES'S MOON RAKER (*purple.*)

Is RATHER heavily edged, without being termed in the least degree pouncy, a fault often found in flowers of a similar character. The richest purple on a very clear and sparkling ground, gives a brilliancy rarely met with, but when found, should be prized as I know this flower must be by all who have grown it.

ROSALIE DE ROHAN. (*yellow.*)

Like chastity, which it is said, wipes off many sins, or imperfections in our nature; so does the strikingly beautiful colour in this flower, make amends for a most defective ragged petal; another property (and one most desirable to exhibitors) must be also thrown into the scale against the imperfect leaf, that of remaining in bloom for many days longer than any variety I am acquainted with. The colour is a bright pink, on a beautiful yellow ground; the plant throws plenty of grass and a good shaped pod. It requires but little protection in the winter, being hardier than most of the yellows.

PRINZ VON ORANIUM. (*yellow*)

I remember some time ago asking Hogg to name the best Picotee, he without hesitation replied, "The Prince of Orange." but as many new and fine varieties must have come under his observation since that time, I cannot say if he continues in the same opinion, not having had any conversation with the Veteran for some two years or more. I have thus lost much information which mixed up with these remarks, would have, perhaps, made them valuable to your readers. Notwithstanding the danger of offering an opinion against so good a judge; I cannot but say that I think the numerous small petals in the flower, to say nothing of the soundness of the pod (always so difficult to bloom) must place it far beneath the enviable situation given it by Hogg. I admit that the colour is very beautiful, and I think unique, and that the petal is perfect in shape. I recommend each plant to be allowed to bloom two pods, or difficulty will be found in preventing it from bursting.

WOOD'S CHAMPION. (*red*)

Should be in every collection, and it is certainly no fault of the plant that it is not, for it constantly throws as much grass,

as ought to intimidate every monopolizer of hay in these dear times. The plant is dwarf, the pod well formed, requiring but little attention to bloom it, the shape of the flower is excellent, the white very fine, but the red rather dull, yet even with this imperfection I think it would be difficult to find a better red Piccotee.

WOOD'S COMET. (*red.*)

To describe this flower, would be repeating all I have said of the Champion, they resemble each other so much, I doubt if Wood himself can find a difference. One may be said to be the Dromio of Ephesus, the other Dromio of Syracuse resembling each other so much, that one often got bastinadoed for the other's faults.

PENSEE.

To be continued.

ARTICLE III.

ON THE PROPAGATION OF HALF HARDY AND SOFT WOODED GREENHOUSE PLANTS.

BY MR. W. H. ST. CLAIR, OAK PARK, GALLOWAY.

IN a former paper I detailed the method practised by Mr. M. Phail, in propagating pinks. At that time I did not wish to occupy too much of your pages in one article, I beg now to subjoin a few more remarks on the method in question; for some years past I have entirely discontinued the use of hand glasses in propagating any soft wooded greenhouse, or half hardy plants, that have fallen under my charge, and, except when I have occasion to propagate early in the spring, I find Mr. Phail's method is a far surer mode of propagating, than by using hand glasses, or giving cuttings the "gentle bottom heat" so highly recommended by some. In propagating cuttings under a hand glass, a shady situation is generally selected, and great care is taken to keep off the sun's rays from affording the least heat to them; this is easily done, for a more unfit form for raising heat; than a hand glass has, cannot be well imagined; it never occurs to the person who uses them in propagating soft wooded plants, that a volume of cold moist air is not as good for raising cuttings as one fourth the same quantity of moist heated air, is; in like manner, in propagating under frames, the sun's services are almost entirely dispensed

with, a bottom heat substituted, in place of them; in Mr. Phail's method, cuttings are forced in a comparatively short time to send out roots, and though a few cloudy days together may seem to argue against it, no bad effect, from such a cause, has ever fallen under my notice. In selecting cuttings for this mode of culture, I use only young, or at most half ripened cuttings, detaching them with the hand from the parent plant when practicable, and after trimming off a few of the large leaves, I insert the heel, or lower joint of the cutting; I give the frame a full south aspect, and raise it a few inches as directed for pinks; I allow only two or three inches between the top of the cuttings and the glass, and give them no air till they have given evident proofs of their having struck root, I shade the sash with several folds of net, pieces of paper, or a thin mat, removing it between four or five in the afternoon; on giving a good watering at planting I find very little more suffices them for the first fortnight, owing to the sash being kept close down; when rooted, I increase the air gradually. I have used frames of all sizes, from one of six inches by nine, to one of six feet in length, and except that I find it more difficult to equalize the temperature in a small frame, I find little difference in the success of the cuttings. I must add, however, that a large sash requires the shading to be a little closer than a small one. If a mixed collection of cuttings is to be put into the same frame, they should consist of such as require about the same time to strike root, and by mixing up a compost of light loam, vegetable mould, or peat and sand, under the treatment detailed above, a good many kinds may be propagated in the same frame.

Before concluding, I beg leave to enumerate a few of such sorts as yield most readily to this mode of treatment, and such as I have propagated for the last three years. Pinks, Carnations, Geraniums, (tricolor included,) Sollyas, Myrtles, Cistuses, Calceolarias shrubby and herbaceous, Fuchsias, Pansies, Salvias, Verbenas, Lophospermums, Petunias, &c., from the certainty and facility, with which the above and many other plants of similar habits may be propagated, I have no hesitation in recommending the method to any of your readers who may feel inclined to try it, and I have every reason to think, if they try it once with cuttings, and subject those cuttings when potted, to similar treatment for about ten days, they will be induced to try the same method again.

WM. ST. CLAIR,

*

ON STRIKING AND SUBSEQUENT CULTURE OF THE ORANGE, AND CITRON.

BY MR. W. WHALE, ELCOT PARK, NEWSBURY, BERKSHIRE.

I BEG leave to communicate to you my mode of cultivating the Orange and Citron, which I have practised for many years with great success, which may be of service to some of your subscribers—that is from single eyes with a leaf attached to it; I immerse the eye in the mould about half an inch deep, and they begin to make roots very soon, sending up a strong shoot at the same time. I have stuck fifty to a hundred in a large sized pot, and scarce one of them failed, and of course a plant on its own bottom is preferable to a plant introduced on another stock. When potted, they should be watered liberally, and introduced into dung heat and shaded. I find they strike most readily in a cucumber bed, the pots plunged to their rims. The compost I generally use is rich loam and rotten dung, the pots well-drained, and about three inches of soot at the bottom of the pot, if a little old mortar, so much the better. I also find the Dahlia strike very freely from single eyes, and much the best mode for summer propagation when you wish to propagate valuable seedlings, as they make strong plants by autumn. I also find *Bigonias* strike freely by the same method. If you think this worthy of a place in your Cabinet, you are at liberty to publish it.

W. WHALE.

ARTICLE V.

ON PROPAGATING EVERGREENS.

BY *PRIMULUS SCOTICA*.

I HAVE lately observed a method most successfully practised by a friend of mine in Argyleshire, which is not, I think, sufficiently known. He plants in an oval or circular space, prepared as usual, as many shoots of the year's growth as it will hold closely placed; he fences the plot with brushwood, and never thins them. In three or four years the shoots unite into an extended and beautiful bush, and in two years they are an ornament to the woods and shrubberies.

My friend has some fine old Laurels, with bare and unsightly:
VOL. V. Z

stems, he has planted round them, at the distance of a foot or more, a number of these shoots, and the effect is extremely good, as they soon unite with the old bush, and continue its dark foliage down to the ground. This plan answers best with the Laurel and Laurestinus.

PRIMULA SCOTICA.

ARTICLE VI.

A DESCRIPTION OF THE *MIMULUS CARDINALIS COCCINEA*, &c.

BY MR. BARRATT.

WHEN the above plant figured in your interesting Work, it was an object of universal admiration, consequently it was much in demand, but when the plants thus purchased flowered, there was a general disappointment, it proved a dingy bad spotted red, and thus the plant fell into great disrepute, indeed the very mention of the name, seemed to excite disgust. However, happening last year somewhere to see a plant in bloom which very nearly answered the colour (not exactly the shape) of the one you figured, I purchased it under the name of *Mimulus Cardinalis coccinea*, it is now in full bloom, several stems near six feet high, covered with splendid scarlet blossoms, six or seven hundred at least; it has been greatly admired, and I think, has removed the existing disgust, from the minds of all who have seen it. I think I never saw a more splendid plant, and at the same time emitting a most delightful musky fragrance, and appears to me to be a very desirable plant. Since purchasing the above plant I have got another variety which I call *M. Car. picta*, the ground colour is the same as the *M. C. coccinea*, with a large dark spot in the centre of the flower, about the size of a shilling; this also promises to be a very desirable plant, either for early forcing in a greenhouse, or for flower borders in summer. I should not have ventured to trouble you with this account, but I really think, such showy plants so cheap (see Advertisement in the Cabinet for June 1837), and so easy of cultivation, that is, grow it in a rich soil, and supply it with plenty of water, in rather a shady situation: it would really be a matter of deep regret should such plants not be grown in almost every garden in the kingdom.

W. BARRATT.

ARTICLE VII.

ON WATER AND WATERING PLANTS,

EXTRACTED FROM AN OLD AUTHOR BY CLERICUS.

THE subject of water, or watering plants has not been as sufficiently examined into as it merits. I am convinced that a great deal of ignorance is displayed in the practice of giving water to plants, both as to its quality and quantity. I have recently met with some useful observations on these matters in a Gardening Book, near two hundred years old, and confident that they would be serviceable to the readers of the Cabinet, I have transcribed them for insertion therein. The Author observes,

“Water is one of the most considerable requisites belonging to a garden : if a garden be without it, it brings a certain mortality upon whatsoever is planted. By waterings the great droughts in summer are allayed, which would infallibly burn up most plants, had we not the help of water to qualify those excessive heats. Besides as to noble seats, the beauty that water will add, in making *Jet d’eaux*, canals and cascades, which are some of the noblest ornaments of a garden.”

“Sir Isaac Newton defines water (when pure) to be a very fluid salt ; volatile and void of all savour or taste ; and it seems to consist of small, hard, porous, spherical particles, of equal diameters, and equal specific gravities ; and also that there are between them, spaces so large, and ranged in such a manner, as to be pervious on all sides.”

“Their smoothness accounts for their sliding easily over the surfaces of one another.”

“Their sphericity keeps them from touching one another in more points than one ; and by both these, their frictions in sliding over one another, is rendered the least possible.”

“The hardness of them accounts for the incompressibility of water, when it is free from the intermixture of air.”

“The porosity of water is so very great, that there is at least forty times as much space as matter in it ; for water is nineteen times specifically lighter than gold, and of consequence rarer in the same proportion. But gold will (by pressure) let water pass through its pores ; and therefore may be supposed to have (at least) more pores than solid parts.”

“Mons. L’Clerk says, there are these things observable in water, which naturalists study to know and account for.”

“It is transparent ; because as some are of opinion, it consists

of flexible particles like ropes, which are not so close as to leave no Pores ; nor so entangled but that there are right lines enough to transmit the light."

"For since the particles are not joined close together, and are in perpetual motion, the very fine particles of light do easily pass through their right lines ; unless the water be very deep, or be put into motion, by some outward cause. Then indeed the transparency of water is very much obstructed, and it looks of a cloudy obscure colour, as it is obvious to sight in a rough sea : For at such a time, the vehement agitation of the water disturbs their pores, and spoils their straightness."

2. "Water is liquid, but capable of being fixed: water seems to be liquid for the same reason as other bodies are so. For since the particles of it are flexible, like ropes, and leave pores between one another, which are filled with finer matter, when this matter is put into a vehement commotion, the particles are easily tossed about every way: yet when the motion of this restless matter is restrained as it is in winter, then the water congeals into ice ; whether this comes of cold only, or there be besides nitrous particles, which fall out of the air at that time, and with their rigidity fix the watery particles."

3. "It may be made hot or cold. The particles of water being, as has before been said, ice, is soon dissolved by the motion of the particles of fire: for the particles of fire, getting into the pores of the ice do mightily shake the fine, flexible particles of ice, and restore them to their former motion in a little time.

"But if this water be set in cold air, the fiery particles will quickly vanish, and the water will become as cold as before.

"4. Water easily evaporates by the heat of fire or air. This is because its particles are quickly separated, and got into motion ; so that the airy particles easily carry those of the water about with them.

"5. It is heavy if compared with air and other bodies, but much heavier than air. It has been shown by various experiments that the gravity of the air, in the place where we live is to that of water, as one to eight hundred, or something more ; so that water is about eight hundred times heavier than air. And for this reason, and for no other a bladder, or other thing filled with air, can hardly be sunk under water ; and indeed, to make air sink, there must be a weight added to it, that shall exceed the weight of the water, as much, and something more, than

that of the water exceeds that of the air. Hence it comes to pass, that water easily supports wood, and vast ships fraught with the heaviest cargo; for the weight alone will never sink them, unless the goods and the vessel should make up a weight which exceeds that of the water; and as salt water is heavier than fresh, so it bears greater weight.

“Those things which are heavier than water, as stones, metals, &c. when they are thrown into it, go straight down to the bottom; and as their weight is greater, by so much the quicker: while other bodies which are the same weight with the water, do neither float on the surface, nor sink quite down, but remain suspended between the top and bottom, as is seen in the carcases of animals.

“6. Water is insipid and without smell. The reason is, because its flexible parts slip gently over the tongue, and are not sharp enough to prick the nerves and affect the taste: but this is to be understood of pure water, void of all kind of salt; such as distilled water is, and next that of rain: for the most wholesome fountain water commonly derives a saltiness from the earth; though in this place is not meant medicinal fountain water, the taste of which is more acute, but such water as is usually drank.

“And that it is without smell. The purer any water is, the less smell it has; for the reason why the particles do not prick the tongue is likewise the reason why they don't affect the smell; the flexibility and smoothness of water, is such, that they cannot penetrate the olfactory nerves; fountain water has indeed some smell, but then it is a sign that such water is not pure.

7. “Water is subject to putrify according as the place is where it is kept. Water will grow thick and stinking, by heat and rest as we find it does in ponds and marshes, and in close vessels. But here it ought to be remembered, that this was what was spoken of before, as such, water is not pure, for unmixed water cannot putrify. This is proved by distilled water, which may be kept very long without putrefaction.

“Rain water which is caught in clean vessels and presently stopped up close and buried under ground, which is kept many years in countries where they want fountains. This shews that the cause of putrefaction is not in the water itself, but in other things that are mingled with it; because pure water, such as is distilled or comes out of the clouds, keeps sweet for a vast while. But then those vessels, in which such water is kept, must be so

well stopped, that the least fly may not get into them, and they must be made of such stuff as will not corrupt, such as glass or clay.

“ But for standing water in ponds or marshes, that is corrupted two ways.

“ By the nature of the soil, which often abounds with noisom sulphur, whereby the water is impregnated and comes to smell in warm weather; as it does at Amsterdam, not only in the trenches, but wherever the ground is opened for the foundation of houses. This putrefaction is owing to the soil, and not to the water.

“ By the nasty things that are thrown into it, or bodies of insects which die in it; as also by the eggs of flies, which are dropped about wherever they go, and breed worms. Water is corrupted in wooden vessels, especially at sea, by the sulphureous parts of the wood, and by uncleanly things, as flies, eggs, &c.

“ Water penetrates the pores of those bodies, whose pores are wide enough to receive its particles. Thus it enters the pores of sugar and salts, so as to separate and quite dissolve their particles; but it cannot get into the pores of stones, or but a very little way; so that it only wets the surface, without diluting them; hangs on the outside of them because they are rough, and because the extremities of their pores are open a little way. But such bodies when they are wet are soon dried in the air, because the motion of the airy particles, carries off the soft and smooth particles of the water.

It is observable that if bodies rubbed over with oil or fat be dipt in water, they get very little wet, because the roughness of their surface wherein the water should hang is smoothed and made even by the fat, and the mouths of the pores are closed up, so that there is nothing left for the watery particles to hold by, and therefore they must needs slide off.

“ Dr. Cheyne observes, that the quantity of water on this side of our globe does daily decrease; some part thereof being every day turned into animals, metalline, mineral and vegetable substances, which are not easily dissolved again into their component parts; for if you separate a few particles of any fluid, and fasten them into a solid body, or keep them asunder one from another, then they are no more fluid: for a considerable number of such particles are required to produce fluidity.

“ Most liquors are formed by the cohesion of particles of dif-

ferent figures, magnitudes, gravities and attractive powers, swimming in pure water, or an aqueous fluid; which seems to be the common basis of all.

“And the only reason why there are so many sorts of water differing from one another by different properties is, that the corpuscles of salts and minerals, with which that element is impregnated, are equally various.

“Wine is only impregnated with particles of grapes, and beer is water impregnated with particles of Barley, &c. All spirits seem water saturated with saline or sulphureous particles.

“And all liquors are more or less fluid, according to the greater or smaller cohesion of the particles, which swim in the aqueous fluid; and there is scarcely any fluid without this cohesion of particles, not even pure water itself, as will appear from the bubbles that will sometimes stand on the surface of it, as well as on that of spirits and other liquors.

“Water adds much to the growth of bodies, in that it both renders and keeps the active principle fluid; so that they are capable of being conveyed by circulation into the pores.

The learned Mr. Halley has demonstrated, that if an atom of water be expanded into a shell or bubble, whose diameter shall be ten times as great as before, such an atom would be superficially lighter than air, and will rise so long as that flatus, or warm spirit which at first separated it from the mass of water, shall continue to distend it to the same degree, but when that warmth declines, and the air grows cooler and withal specifically lighter, these vapours will stop at a certain region of the air, or else descend.

“Therefore, if it should be supposed that the whole earth were covered with water, and that the sun should make his diurnal course round it as now he does, he is of opinion, that the air would be impregnated with a certain quantity of aqueous vapours, which it would retain in it, like salts dissolved in water, and that the sun in the day time warming the air, that part of the atmosphere would sustain a greater proportion of vapours (as warm water will hold more salt in it dissolved than cold) which by the absence of the vapours at night would be discharged into dews.

“And in this case he concludes there could not be any diversity of weather other than periodically every year alike; the mixture of all terrestrious, saline, and heterogeneous vapours

here being excluded, which he judges to be, when variously compounded and driven by winds, which are the causes of these various seasons, and changes of weather which we now find.

“ But instead of supposing an earth covered all over with water, you suppose the sea interspersed about wide and spacious tracts of land, and also divided by high ridges of mountains, such as the Alps, the Appenine, and the Pyrenean in Europe; the Caucasus, the Imaus, and the Taurus in Asia; the mount Atlas of the Moon in Africa; the Andes and Apalatean mountains in America; each of which surpasses the usual height to which the aqueous vapours do of themselves ascend; and on the tops of which the air is so cold and rarified, as to retain but a small portion of these vapours, which are brought hither by the winds.

“ Then the vapours thus raised from the sea, and carried by the winds over the low lands to those ridges of mountains, are there compelled by the streams of the air to mount with it up to their tops, where the water presently precipitates, gleeting down by the crannies of the stones; and part of the vapours entering into the caverns of the hills, the waters thereof gathers, as in an alembic in the basons of stones; and these being once full, the overplus water runs down at the lowest place of the bason, and breaking out by the sides of the hills, forms single springs; many of which running down by the vallies or guts, between the ridges of the hills, and after uniting, form little rivulets and brooks, and many of these meeting again form large rivers.

“ Dr. Woodhouse has made these useful experiments of water following:

“ He tells us, that he chose several glass phials, which were all as near as possible of the same shape and bigness; that he put water into every one of them, as much as he thought fit, and took an account of the weight of it, then strained and tied a piece of parchment over the surface of each phial, and made a hole in the middle of it large enough to admit the stem of the plant he designed to set in the phial, without confining and straitening it so as to hinder its growth. This design was to hinder the enclosed water from evaporating or ascending any other way, than only through the plant that was in it.

To be continued.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our List

1. DELPHINIUM INTERMEDIUM VAR. PALLADIUM. *Pale blue variable Larkspur.*

RANUNCULACEÆ. POLYANDRIA TRIGYNIA.

This very neat and handsome flowering variety, well deserves a place in every flower border, where plants growing seven feet high can be admitted. The foliage is smoother than the original species, of a delicate glaucous green. The flowers are produced in long spikes, of a fine light sky-blue colour, which produce a charming appearance. We have had plants of it blooming eight feet high, with racemes of flowers nearly five feet long. *Delphinium* from *delphis* a dolphin, the resemblance of the nectary.

2. EUCHARDIUM CONCINNUM. *Pretty flowered.* [Bot. Mag. 3589.

ONAGRARIÆ, TENTANDRIA MONOGYNIA.

This neat and pretty flowering annual, is a native of Ross in New California. It appears to be allied to *Epilobium* and *Clarkia*. The stems rise about eight inches high, each terminating by several flowers of a fine rose-colour, with deeper spots and paler veins. Each flower is an inch across. It blooms freely in the open border from July to the end of summer. *Eucharidium*, from *eu, bene*; and *charis gaudium*, alluding to the lively appearance of the flowers.

3. EULOPHIA MACROSLACHYA. *Long spiked.* [Bot. Reg. 1972.

ORCHIDACEÆ, GYNANDRIA MONANDRIA.

This species is an inhabitant of Ceylon, growing and flowering profusely in shady woods, similar to the orchis of our meadows in this country. In the hothouse it blooms freely towards the end of the year, even up to Christmas. The flowers are produced in long racemes, of a green and yellow colour spotted with red. *Eulophia*, from *eulophos*, well crested, surface of middle lobe of lip.

4. GESNERIA ELONGATA. *Elongated.* [The Botanist.

GESNERACEÆ. DIDYNAMIA ANGIOSPERMIA.

It has been stated by Humbolt that this species is a native of Quito, in South America. It was introduced into this country in 1835. Messrs. Pope of Handsworth Nursery, near Birmingham, have had it in bloom in their collection, and it was very much admired. The flowers are of a bright crimson colour, each near an inch long, produced in umbels of four or five on each. *Gesneria*, in compliment to Conrad Gesner of Zurich, who died in 1565.

5. IMPATIENS SCAPIFLORA. *Stemless Balsam.* [Bot. Mag. 3857,

BALSAMINEÆ PENTANDRIA MONOGYNIA. SYNONYMS I. ACANIS. I. EULHOSA.

This very interesting and pretty flowering species was sent from Bombay to the Glasgow Botanic Garden, William Nimmo, Esq. having transmitted some tubers of it. The plant has bloomed beautifully in the stove. The plant has a very striking resemblance to a *Begonia*. The flowers are produced in scapes, each of which are about ten inches long. The blossoms

are of a delicate rosy purple colour. *Impatiens*, so called on account of the elastic nature of the valves or capsule, which throw out the seeds with considerable force.

6. *PLEUROTHALLIS SAUROCEPHALA*. Lizard-headed. [Bot. Reg. 1968.

ORCHIDÆÆ. GYNANDRIA MONANDRIA.

This species has been in a few collections of Orchidææ for some years but still remains scarce. It has bloomed in the collection of Sir Charles Lemon, Bart. M. P. Carclew, Cornwall. The flowers are small, of a mixture of brown purple, and greenish yellow.

7. *PSORALEA ORBICULARIS*. Round-leaved. [Bot. Reg. 1971,

LEGUMINOSÆ. DIADELPHIA DECANDRIA.

The late Mr. Douglas sent seeds of this species from California to the garden of the Horticultural Society. It is a hardy Herbaceous plant, blooming in June and July. The flower stems rise to about eight inches high, producing the blossoms in a conical head. They are of a deep rose colour, with a pale blue keel, producing a pretty effect, *Psoralea*, from *psoraleus*, scurfy; the appearance of the calyx.

8. *RHIXIA MARIANA*. Maryland *Rhexia*. [Botanist

MELASTOMACEÆ. OCTANDRIA MONOGYNIA.

A native of new Jersey. It was introduced many years ago, but was lost in this country. It has recently been sent to the garden of the Birmingham Botanical Society, and bloomed in the greenhouse at that place. It will flourish in the open border in summer, and be preserved in a cold frame in winter. The flowers are of a lilac purple colour, each rather more than an inch across. *Rhexia*, from *rhexis*, a protrusion or swelling, to which some plants of this order were applied as a cure.

9. *SIPHOCAMPYLUS BICOLOR*. Two coloured. [Brit. Flow. Gard. 389.

LOBELIACEÆ. PENTANDRIA MONOGYNIA.

This is a very showy and interesting flowering plant. It is a hardy perennial. Mr. A. Gordon collected seeds of it in Georgia, and sent them to Mr. Lowe, of the Clapton nursery, where it has bloomed. The stems rise to about three feet high, producing flowers very freely. Each corolla is more than an inch long. The tube is scarlet, the three parted limb is yellow. It is a neat and pretty plant, well deserving a place in every flower garden. *Siphocampylus* from *siphon* a tube, and *kampulos* curved, alluding to the curved tube of the corolla.

10. *ZYGOPETALAM COCHLEARE*. Shell lippe*d*. Bot. Mag. 3535.

This species is probably a native of Trinidad, it has bloomed in the Glasgow Botanic Garden. Flowers—Sepals of a pale greenish-white, lip having purple lines and a great purple blotch in the upper half. The scape rises about three inches high, producing a single flower. The flower is more than two inches across. *Zygopetalum*, from *zygos* yoke, and *petalon* a petal, alluding to their being joined at the base.

11. *BAERIA CHRYSOSTOMA*. Golden anthered. [Brit. Flow. Gard.

COMPOSITEÆ. SYNGENESIA POLYGAMIA SUPEFLUA.

A hardy annual, growing a foot high. The plant has very much the appearance of *Talinum ciliatum*; but the flowers are of a bright yellow, about an inch across. It is a native of New California; seeds of the plant were sent from the Imperial Botanic Garden at St. Petersburg to this country. The plant has bloomed in the collection of Mr. Janson, Stoke Newington, London. *Baeria*, in compliment to Professor de Baer of the university of Dorfat.

PART III.

MISCELLANEOUS INTELLIGENCE.

ON A LIST OF BULBOUS AND EARLY SPRING FLOWERING PLANTS.—Will you allow me to thank your Correspondent, "An Old Subscriber," for the useful list of annual, biennial, and perennial flowers in your number for March 1835, and to remind him at the same time that a promise of a similar list of the best bulbous and early spring plants have not yet appeared. The introduction into my garden of most of the flowers contained in his former list has given so gay, nay, I may say, splendid appearance to it during the summer and autumn months, that I am extremely anxious to obtain a similar display of beauty for those of the spring, which I have no doubt the kindness of your correspondent will enable me to procure.

PHILO FLOS.

Can you or any of your correspondents inform me if saw dust can by any process be rendered a fit manure for flowers. I two years ago top dressed my beds with oak saw dust, one year old, and nearly rotten, but it killed many, and much injured most of the annuals that happened to have been planted out about a fortnight before. Perhaps the tanning contained in the oak may be prejudicial to flowers? Would a mixture of lime neutralise it?

PHILO FLOS.

ON DELPHINIUM CHINENSIS ALBIFLORA, &c.—A Subscriber to the Floricultural Cabinet would be glad to be informed where *Delphinium Chinensis albiflora*, figured in the (Cabinet of November 1834) is to be obtained. He has bought several purporting to be the sort mentioned but they have invariably turned out the single blue species, a trick he is sorry to say of very common occurrence with some nurserymen. An early answer will oblige.—He would also be glad to know where *Oenothera aeneoloba* is to be had.

ON THE BEST SEASON FOR SOWING PANSEY SEED.—I have collected during the three first weeks of August a quantity of pansy seed, but am at a loss to know whether to sow it this season, or defer it till spring. I was afraid to sow it now, lest the plants should be too weakly to endure the winter, yet I thought if I could secure the plants through winter, I should have strong plants for blooming early next season. I should be glad if some reader of the Cabinet, who has had experience in this particular, would give a paper upon it, saying, how late, if this season, seed may be sown, and the plants treated so as to abide through winter. And if not till spring, how to treat them the successive period of the year. An early compliance with his request will much oblige,

A LADY.

ANSWERS.

ON DESTROYING THE GREEN FLY INSECT INFESTING THE ROSE, &c.—In a former Cabinet "Rosa" wishes to know how to destroy the green fly insects, on rose trees, in the cheapest, easiest, and most effectual manner. I would recommend him to throw, with great force, handfuls of fine sand (sea sand, if he is near the coast, as I am, is cheap enough) and he will find his trees very soon clean and healthy. Probably coal ashes reduced very fine, might answer as well as sand, but I have never tried it. CALCEOLARIA.

Ornamental stand of flowers.—Mrs. S. Craddock

Bouquet of flowers.—Mr. Oliver.

Bouquet of hardy perennials, fifty-one varieties.—Rev. R. Wilson Taylor.

SHEFFIELD BOTANIC SOCIETY.—The exhibition of plants, flowers and vegetables for the season lately took place. The tent for the display of vegetables was fixed in the lower part of the gardens, conveniently arranged, with a table, eight feet in width down the centre, and having a space on each side for the accommodation of visitors. In this tent numerous articles were exhibited of very great beauty and excellence. Mr. Paxton's *Clerodendrum* with rich scarlet flowers, although a good deal injured by its long carriage from Chatsworth, was nevertheless much admired. Mr. Braide's *Elichrysium venusta*, and *Erica ordonata*, were pronounced by competent judges to be the finest in the kingdom. There were many other plants which displayed much skill and attention in their cultivation; such as *Fuchsias*, *Geraniums*, *Calceolarias*, *Pinks*, *Ranunculuses*, *Roses*, *Annuals*, &c. On the first day the gardens were visited by a large number of the proprietors and subscribers. On the second day the number of visitors was larger than on the first. The cavalry band was in attendance both days, and the weather being fine, many strangers from a distance, as well as persons in the town and its surrounding neighbourhood, availed themselves of this opportunity of testifying their love for the beauties of Flora, and the rich treat which such exhibitions are calculated to supply, collected, as many of the specimens not unfrequently are, by obtaining a few seeds or roots from the remotest parts of the globe, but yet seldom visited by civilized men.

The judges were for the plants—Mr. H. Shepherd, Botanic Garden, Liverpool; Mr. Rider, nurseryman, Leeds; Mr. Parkin, gardener to Mr. Stanhope, Cannon Hall; and Mr. Wilson, gardener to the earl of Surrey.

PLANTS.—Stove Plants, 1. *Clerodendrum speciosissimum*, Mr. Paxton, 2. *Brunfelsia Americana*, Mr. Appleby, Gardener to J. Young, Esq. 3. *Sinningia guttata*, Mr. Waters, gardener to Mrs. Shore, Meersbrook.

Orchideous plants, 1. *Oncidium Lanceanum*, Mr. Menzies, gardener to C. Rawson, Esq. Halifax. 2. *Egidendrum Oncidioides*. 3. *Maxillaria cristata*, Mr. Paxton.

Bulbs, or Scitamineous, 1. *Wurmbea purpurea*. 2. *Lapeyrousia corymbosa*. 3. *Babiana rubro-cyanea*, Mr. Appleby.

Succulents in flower, 1. *Epiphyllum splendidum*. 2. *Epiphyllum Jenkinsoni*, Mr. Appleby.

Succulents not in flower, 1. *Cactus senilis*, Mr. Paxton.

Collection of Ferns, 1. *Blechnum Cavendishense*, *Adiantum trapeziforme*, and a species from Mexico. 2. *Blechnum angustifolium*, *Lygodium Scandens* *Gymnogramma*, Mr. Waters.

Green-house Plants, 1. *Elichrysium venusta*, Mr. Braide, gardener to H. Wilson, Esq. Birthwaite Hall, near Barnsley. 2. *Pimelia decusata*, Mr. Paxton. 3. *Lachenaultia formosa*.

Ericas, 1. *E. odorata*, Mr. Braide. 2. *E. ventricosa superba*, Mr. Appleby.

Dark *Geraniums*, 1. *Angustissima*, Mr. R. Turner, of Sheffield, florist. 2. Lord Nelson, Mr. Appleby.

Rose Geraniums, 1. *Statvia*, Mr. Hall, Doncaster. 2. Tam O'Shanter, Mr. R. Turner.

White *Geraniums*, 1. *Hillebrandii*. 2. *Cleopatra superba*, Mr. Appleby.

Collection of three shrubby *Calceolarias*, 1. Captain Rosa. 2. *Sessilifolia*, Mr. Appleby.

Collection of Herbaceous *Calceolarias*, 1. *Guttata*, Mr. Barron. 2. Countess of Shrewsbury, Mr. Appleby.

Greenhouse succulents in flower, 1. *Mesembryanthemum species*, Mr. Appleby. 2. Ditto, Mr. Menzies.

Annuals in Pots, 1. *Collinsea bicolor*, Mr. Paxton,

Fuchsias, 1. *Fuchsia globosa*, Mr. Braide. 2. *Globosa*, and 3. *Grandiflora*, Mr. Menzies.

Herbaceous Plants, 1. *Cypripedium spectabile*. 2. *Penstemon digitalis*, Mr. Menzies.

Hardy Shrub, 1. *Deutzia scabra*. 2. *Azalea Recentissima*, Mr. Menzies.

Display of cut Flowers, 1. The crown, with the word "Victoria," round the bottom, Mr. Paxton. 2. Splendid pyramid, Mr. Appleby.

Roses, Hybrid or China, 1 and 2, cut flowers, Mr. Hall.

Roses, Province or Garden varieties, 1 and 2 cut Flowers, Mr. Hall.

Moss Roses, 1 and 2 cut Flowers, Mr. Hall.

Extra Prize for Hardy Ferns—*Asplenium fontanum Marinum*, *Woodsia ilvensis*, *Asplenium lanceolatum*, *Polypodium calcareum*, Mr. Waters.

Extra Prize for the South American Pitcher Plant—*Cephalotus follicularis*, Mr. Paxton.

FLOWERS.—First pan of 10 *Ranunculuses*, Mr. William Archer; 2d ditto of 10 *Ranunculuses*, Mr. Birley, Earl Street, Sheffield. First Pan of 6 *Ranunculuses*, Mr. Smith, Ecclesall, New Road; second ditto of 6 *Ranunculuses*, Mr. Birley. Collection of less than 12 varieties of *Panuzies*, Mr. Turner, florist, Sheffield. Best Pan of 12 Pinks, Mr. Smith, Ecclesall, New Road; Second ditto of 12 Pinks, Mr. Simonite, Sheffield Park.

PLANTS.—Mr. Appleby being the competitor who had obtained the greatest amount in money Prizes, in the different classes of plants, received, in addition to his prize money, an elegant fowling piece, presented by Joseph Shore, Esq. of Birmingham, value £ 15.

Mr. Paxton having obtained the second greatest amount, received, in addition to his prize money, a silver cup, value £5.

FRUITS.—The greatest amount in money prizes having been obtained by Mr. Paxton, he received in addition to the money prizes, a silver cup, value £ 10.

The second greatest amount having been obtained by Mr. Batley, of Wentworth Castle, he received in addition a silver cup, value £5.

VEGETABLES.—A silver cup, value £10. was received by Mr. Abraham, South street, who had obtained the greatest amount in money prizes.

Mr. Waterhouse, having obtained the second greatest amount, received a prize, value £2 10s.

COTTAGERS' CLASS.—Mr. Marsden Little Sheffield, received one sovereign in addition, having obtained the greatest amount of money prizes for vegetables.

Mr. Machon, Little Sheffield, received 10s. for having obtained the second greatest amount.

Mr. Fielding, Sheffield, received 5s. for having obtained the third greatest amount.

A CHAPTER OF FLOWERS.—Flowers of all created things are the most innocent and simple, and most superbly complex; playthings for childhood, ornaments of the grave, and the companion of the cold corpse in the coffin. Flowers, beloved by the wandering idiot, and studied by the deep thinking man of science! Flowers that of perishing things are most perishing, yet of all earthly things, are the most heavenly. Flowers, that unceasingly expand to heaven their grateful and to man their cheerful looks—partners of human joy, smoothers of human sorrow; fit emblems of the victor's triumphs, of the young bride's blushes; welcome to crowded halls, and graceful upon solitary graves!.....Flowers are in the volume of nature, what the expression "God is love," is in the volume of revelation.....What a dreary desolate place would be a world without a flower! It would be a face without a smile—a feast without a welcome....Are not flowers the stars of the earth, and are not flowers the stars of heaven? One cannot look closely at the structure of a flower without loving it. They are emblems and manifestations of God's love to the creation, and they are the means and ministrations of man's love to his fellow creatures; for they first awaken in him

mind a sense of the beautiful and the good.....The very inutility of flower, is their excellence and great beauty; for they lead us to thoughts of generosity and moral beauty, detached from, and superior to all selfishness; so that they are pretty lessons in nature's book of instruction; teaching man that he liveth not by bread or from bread alone, but that he hath another than an animal life.

ON OBTAINING LARGE FLOWERS OF THE DAHLIA.—I have been given to understand that nurserymen who exhibit Dahlias at the shows, and produce flowers of such immense size, are accustomed to prune away the greater part of a plant, as well as the flower buds at an early stage. I wish some person who has practised these operations, would give a few instructions, at what stage of growth this may be effected, and how performed, &c.

CLERICUS.

ON IPOMEA AND CONVULVULUS.—The genera *Ipomea* and *Convolvulus* are so similar, that many unite them into one, but the best botanists keep them separate. In *Convolvulus*, the calyx sometimes has two small bracts. In *Ipomea* it is always naked. In *Convolvulus* the stamens are shorter than the limb of the corolla. Ovary is two, seldom three celled; and the stigmata are two, filiform, not capitate.

BOTANIST.

FLORICULTURAL CALENDAR FOR SEPTEMBER.

Annual flower seeds, as *Clarkia*, *Collinsia*, *Schizanthuses*, Ten-Week Stocks, &c. now sown in pots and kept in a cool frame or greenhouse during winter, will be suitable for planting out in open borders next April. Such plants bloom early and fine, and their flowering season is generally closing when spring-sown plants are coming into bloom.

Carnation layers, if struck root, should immediately be potted off.

China Rose cuttings now strike very freely; buds may still be put in successfully.

Mignonette may now be sown in pots to bloom in winter.

Pelargoniums, cuttings of, may now be put off; plants of which will bloom in May.

Pinks, pipings of, if struck, may be taken off and planted in the situations intended for blooming in next season.

Plants of Herbaceous *Calceolarias* should now be divided, taking off offsets and planting them in small pots.

Verbena Melindris (*chamedrifolia*.) Runners of this plant should now be taken off, planting them in small pots and placing them in a shady situation. It should be attended to as early in the month as convenient.

Plants of Chinese *Chrysanthemus* should be repotted if necessary; for if done later, the blossoms will be small. Use the richest soil.

When *Petunias*, *Heliotropium*, *Salvias*, *Pelargoniums* (*Geraniums*), &c. have been grown in open borders, and it is desirable to have bushy plants for the same purpose the next year, it is now the proper time to take off slips, and insert a number in a pot; afterwards place them in a hot-bed frame, or other situation having the command of heat. When struck root, they may be placed in a greenhouse or cool frame to preserve them from frost during winter. When divided and planted out in the ensuing May in open borders of rich soil, the plants will be stocky, and bloom profusely.

Tigridia pavonia roots may generally be taken up about the end of the month.

Greenhouse plants will generally require to be taken in by the end of the month. If allowed to remain out much longer, the foliage will often turn brown from the effect of cold air, &c.

Plants of *Pentstemons* should be divided by taking off offsets or increased by striking slips. They should be struck in heat.

The tops and slips of *Pansies* should now be cut off, and be inserted under a hand glass, or where they can be shaded a little. They will root very freely and be good plants for next season.

THE FLORICULTURAL CABINET,

OCTOBER 1st, 1837.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE 1.

ON THE CULTURE OF PHLOX DRUMMONDII.

BY A

CLERGYMAN'S DAUGHTER, IN SURREY.

THE flowers of the whole tribe of Phloxes are beautiful, and in general admiration, they are highly ornamental to a flower garden, and merit a place in every one. Nearly every species is of a desirable height for it, growing from one to two feet and a half high. The plants are of easy culture, and to be obtained at a trifling price. These facts induce me to offer some observations upon the culture, &c. of the whole genus, having in my possession every species and variety I have hitherto heard of.

During the present summer I have been quite delighted with that most charming, newly introduced kind, *Phlox Drummondii*, and its varieties. In 1836 I procured a plant of the original kind and kept it in a pot through winter; early in May I procured small plants, eight or ten inches high, of several hybrids, and immediately turned them out into a bed. The hybrid varieties were *venustum*, a most beautiful rose colour, having a dark centre; *formosum*, lilac, dark red eye, very large, round flower; *pulchellum*, very dark velvet crimson, black centre, round flower; *bellissima*, lilac with very large, crimson eye; *speciosa*, very dark velvet crimson, rather star shaped, darker centre; *carnescens*, a light rosy-pink. The original kind is of a rosy-red with a small

eye. These seven kinds I had sufficient of to plant a small circular bed, a yard in diameter, of each in my flower garden, seven plants in a bed. The beds were at a distance of about ten yards from each other, with intervening beds planted with other plants. I had each bed raised high at the centre, so that when the plants were in bloom, the bed had the appearance of a cone of splendid flowers, beautiful in appearance, and producing a neat and striking effect.

My soil is a sandy-loam what I enriched moderately with some rotten manure. I have already gathered some seeds from each kind, and I observe there is an appearance of obtaining a good supply; a paper of each I inclose for the Conductor of the Cabinet. In 1836 I had the original kind but not early enough to afford me an opportunity of obtaining any seed, but having plenty of young shoots upon the plant about four or five inches long, I took a quantity off early in September, inserted them in sandy loam, and placed them on a gentle hot-bed, within a frame, and in three weeks they had struck root. I removed the pots of cuttings at the end of October into a cool part of a greenhouse, where I kept them healthy through winter, and at the end of March I potted them off, singly, into small pots, and in May turned those I wanted for the purpose into the bed in the flower garden, and removed a few into larger pots to adorn the greenhouse, where they have flowered most profusely. The same mode of propagation will, of course, equally succeed with my hybrid varieties, so that I shall be able to keep up each kind permanently.

The seeds I shall obtain from the plants I possess this year will be sown next spring, and doubtless the produce will afford me many handsome varieties. Whether the plants be grown in the greenhouse, on beds of a sort, or singly in the general mass of a flower bed, in each, and in all nothing can be more neat and striking as a flower.

My plants, in the open border, came into bloom early in June, and have been in profusion up to the present time, September, and will continue to bloom as long as the season admits.

The tallest of my plants grow about two feet high, and have spreading heads proceeding from a single stem, more than half a yard across.

(To be Continued.)


ARTICLE II.

ON THE CULTURE OF THE PANSY

BY S. C. COOK, COVENTRY.

SEEING several subjects in your Floricultural Cabinet on the culture of the Pansy, I herewith send you my mode of cultivating this beautiful tribe of plants. The aspects I prefer is a south-east one, the blossoms are soon shaded from the intense heat of the sun, and screened from strong winds; I always prefer growing them in beds, which beds are four feet wide, and in length according to the number cultivated. The bed is supported at the edges with iron work of a low form, as fig. 1.

Fig. 1.

The compost I use is one fourth maiden loam,  two fourths black garden mould, and one fourth rotten dung. When the bed is prepared, I draw lines longitudinally from one end of the bed to the other, by which lines I set the plants in rows. A bed four feet wide will allow of four longitudinal rows of plants; there should be one foot allotted to each plant in the rows, I always choose short strong plants, which are small in circumference. When I have finished planting, I procure some hoops and mats, for the purpose of shading the plants for a few days, until they have fully established themselves. As soon as the season of propagating commences, which I consider about the first of July, or if a late season it may be delayed till the first of August; I proceed cutting off the strongest shoots, observing to cut them off at a joint, and then putting the different varieties into separate vessels of soft water, for a few hours, which I find greatly to promote their striking. The cutting bed is composed of about one-third pit or river sand, to insure a closeness round the cuttings: then the cuttings of each variety are planted separately and numbered, and are allowed to remain in that situation until the following spring, when they are taken up and planted in beds. It greatly improves the flowers, if the plants are watered with liquid manure, twice, or three times a week; it is necessary to keep a watchful eye upon the plants that are left for seed, for it will disperse itself in a few minutes after it is matured. I would here mention the utility of impregnating the flowers of different varieties, by impregnating the best formed kinds, and those having flowers of the finest, most clear and distinct, as the remotest in colour from each other. The produce will be kinds almost certainly to be depended upon as good, and in colour what

may naturally be depended upon by a comixture of any two principal colours in the flowers. It is a most interesting attention to be paid to this charming, sweet, flower, to raise the plants, watch their progress, and to daily, in the season, see the first opening flowers of new varieties. It far more than compensates for any attention bestowed.

ARTICLE III.

DIALOGUE BETWEEN BLOOMWELL, AN OLD FLORIST; AND WOULDKNOW, A NEW BEGINNER.

BY BIZARRE.

WOULDKNOW. Good morning to you, Mr. Bloomwell, you see I am come again to admire your carnations.

BLOOMWELL. I assure you, Sir, I am very glad that my flowers have sufficient beauty to attract your notice; allow me to introduce you to no less a personage than the Queen of Sheba.

WOULDKNOW. You mean Lasselles' Queen of Sheba, purple flaked, I suppose? I have heard much talk about it.

BLOOMWELL. Now, you see it, what do you think of it?

WOULDKNOW. I think it a most beautiful flower, and an indispensable one in every good collection.

BLOOMWELL. You are right, it has high colour, good white, and sufficient size. These are very desirable properties, but it is apt to throw the petals too much out of the calyx, and by that circumstance soon becomes loose.

WOULDKNOW. I heard Mr. M., lay a wager the other day at S. Show, that he had paid particular attention to it, and was convinced that Turner's Princess Charlotte and it, were one and the same flower, do you agree with him in that opinion?

BLOOMWELL. Certainly not, there may be, and is, a great similarity, but the Queen of Sheba was raised by a gentleman, who could not for a moment be suspected of such a gross deception, as to give out as a seedling of his own, an old and well known flower. A scientific botanist would perhaps sooner point out the difference than a florist, I think Mr. M. could not have paid a greater compliment to the Queen of Sheba than by identifying her with the Princess Charlotte, a flower which has stood at the head of its class for many years.

WOULDKNOW. Pray what beautiful scarlet Flake is that, at the end of the stage?

BLOOMWELL. An old favourite of mine, Pearson's Madam Mara, which when well blown, is surpassed by no flower of its class that I have seen. Perhaps no flower is more universally grown, and I believe no flower has taken more prizes. 'The scarlet is good, the white at first has a pink shade, but bleaches as the flower expands. The petals are very apt to cup, and from that circumstance often crack at the edge which spoils the bloom.

WOULDKNOW. Pray is not Stearne's Dr. Barnes, said to be the same flower with this?

BLOOMWELL. It has been so said, and no doubt as there is a great likeness, the old flower has been frequently sold for the new one by unprincipled persons, and this has caused the two to be confounded. I have never had Dr. Barnes from the raiser which is the surest way of comparing the flowers, and I cannot believe any true Florist would be guilty of such an imposition, without the clearest evidence; another reason for doubting the identity of the two flowers in question is, from my own experience. A few years ago I raised a seedling scarlet Bizarre, from Wild's perfection, so much like the parent, that it might easily have passed for it without much danger of the cheat being discovered. 'This being my case, why may not others have had the same thing happen to them? The whole mystery seems to me to be thus easily accounted for. A new flower of uncommon attraction is announced, some old stager of more cunning and sagacity than honesty, finds out that it is very much like some old and cheap sort, and instigated by the love of gain, immediately substitutes the one for the other, so that in a year or two the confusion becomes complete.

WOULDKNOW. Are there many flowers in this predicament?

BLOOMWELL. Perhaps there may in the Florist's Gazette for 1832, I find Leightons' Miss Foote, and Sir George Crewe, rose flakes, classed as one flower. Also in the same class Faulkner's Eliza, and Smalleys' Wonderful. With respect to the former of these, I can say nothing, having grown Sir George Crewe only, but for the latter, I affirm there are not in the whole class perhaps two flowers more unlike. I had 'Wonderful' from a person who had it from the raiser, and 'Eliza' from a gentleman amateur, who is very careful in his selection of plants, and in all probability had

it direct from the raiser. 'Eliza' is a Pink flake of low growth, a shy breeder, and bad striker; 'Wonderful,' on the contrary, is a high Rose flake, of taller and freer growth, a larger bloom, and in all respects a *wonderful* deal the best flower. How they came to be confounded, whether by accident or design I cannot tell, but I believe 'Wonderful' is generally sold for both. What I consider the true 'Eliza' being comparatively scarce.

WOULDKNOW. What pale coloured flower is this, it seems to be a crimson or purple Bizarre, but the quantity of dark colour is very small?

BLOOMWELL. That flower should be a caution to you not always to expect the highest priced flowers to be the best, it is called Huggin's Brilliant. But in what its brilliancy consists I have yet to learn. I have grown it these three years, and the bloom you now see on it, is the best in colour I have had. In Mr. Hogg's Catalogue for 1830, it is offered at twenty shillings per pair. If it never blooms better than I have seen it, it would be too dear at twenty pairs for a shilling; for to my fancy, a flower that is short of colour has the greatest fault possible. I would sooner have a rough edge, or a deficiency of size, or any other single defect, where the colouring was splendid, than this defect of pale colouring, though the flower was as large as a Dahlia.

WOULDKNOW. What a fine high coloured rose flake the next is, this will not loose your favour for want of colour.

BLOOMWELL. True, but it sometimes looses it by having too much, being rather subject to run, it is called Fletcher's Duchess of Devonshire, and is said to be a sport from Gregory's King Alfred, that fine old crimson Bazarre, in the next pot.

WOULDKNOW. Is it possible that this can be the case.

BLOOMWELL. It certainly is possible, but the probabilities are ten to one against it.

(To be continued.)

ARTICLE IV.

ON WATER AND WATERING PLANTS.

(Continued from p. 208.)

"Then he made choice of several sprigs of Mint, and other Plants, that were, as near as he could judge, alike fresh, sound,

and lively ; and having taken the weight of each, he placed it in a phial, ordered as above ; and as the plant imbibed and drew off the water, he added more from time to time, keeping an account of the weight of all he added.

“Each of the glasses were, for the better distinction and the more easy keeping a register noted with a different mark or letter as A, B, C, &c. and all set in a row in the same window, that they might all partake alike of the air, light and sun.

Thus they continued from July the twentieth, to October the fifth, which was just seventy seven days ; then he took them out and weighed the water in each phial, and the plant also, adding to its weight that of all the leaves which had fallen off during the time it stood thus. And lastly, he computed how much every plant had gained, and how much water was spent upon it. The particulars are as follows.

“A. a common spear mint set in spring water.

“When the plant was put in, in July the twentieth, it weighed just twenty-four grains ; when taken out, October the fifth, it weighed forty two grains ; so that in the space of seventy seven days, it had gained in weight fifteen grains.

“The whole quantity of water expended during the seventy seven days amounted to two-thousand-five-hundred and fifty-eight grains ; and consequently, the weight of the water taken up was one-hundred and seventy and three-thirteens times as much as the plant had got in weight.

“B, common spear mint set in rain water, the mint weighed when put in, twenty eight grains and a half, and when it was taken out forty five grains four thirds, having gained in seventy seven days seventeen grains and an half.

“The whole quantity of water expended was three thousand and four grains which was an hundred and seventy one twenty-three thirty-fives times as much as the plant had received in weight.

“C, common spear mint set in thames water. The plant when put in weighed twenty eight grains, when taken out fifty four grains, so that in seventy seven days it had gained twenty six grains.

“The whole of the water expended, amounting to two thousand four hundred ninety three grains which was ninety five, twenty-three twenty-six times as much as the additional weight of the mint.

"D, The common solanum or nightshade set in spring water. The plant weighed when put in, forty nine grains, and when taken out one hundred and six grains, having gained in seventy seven days-fifty seven grains.

"The water expended during the seventy seven days was three thousand seven hundred and eight grains, which was sixty five three fifty seven as much as the augment of the plant.

"The spearmint D had several buds upon it, when first set in water; these in some days became fair flowers, which were at length succeeded with berries.

"Several other plants were tried that did not thrive in water, or succeed better than the cataputia.

F, lathyrus or cataputia gerb, set in spring water; it weighed when set in, ninety eight grains, when taken out one hundred and one grains and an half. The additional weight for the seventy seven days being but three grains and an half.

"The quantity of water, spent upon it during that time, was two thousand five hundred and one grains, which is seven hundred fourteen times four thirds as much as the plant was augmented.

"F, G, those two phials so marked, were filled; the former with rain, and the latter with spring water, at the same time that the other before mentioned were, and stood as long as they did, but had neither of them any plant, his design in this being only to inform himself, whether any water exhaled out of the glasses, otherwise than through the bodies of the plants. The orifices of these glasses were covered with parchment, each piece being perforated with a hole of the same bigness with the other. And he suspended a bit of stick, about the thickness of the stem of one of the aforesaid plants, but not reaching down to the surface of the included water. These he put in thus, that the water in these might not have more scope to evaporate, than that in the other phials.

"Thus they stood the whole seventy seven days in the same window with the rest; when, upon examination, he found none of the water in these wasted or gone off. Though he observed, both in these and the rest, especially after hot weather, small drops of water adhering to the insides of the glasses; that part of them that was above the surface of the inclosed waters.

"The water in these two glasses that had no plants in them, at the end of the experiment, exhibited a larger quantity of terrea-

trial matter, than that in any of those that had the plants in them did. The sediment in the bottoms of the phials was greater and the nubeculæ diffused through the body of the water, was thicker."

"And of that which was in the others, some of it proceeded from certain small leaves that had fallen from that part of the stems of the plants, that was within the water, wherein they rotted and dissolved. The terrestrial matter in the rain water was finer than that in the spring water.

"In the year 1692, he made the following experiments with Hyde Park conduit water. The glasses, he made use of in this, were of the same sort with those of the former, and covered over with parchments, in like manner. The plants were all spear mint, the most kindly, fresh, sprightly shoots he could chuse. The water and the plants were weighed as before, and the phials set in a line in a south window; where they stood from June the second to July the twenty-eighth, which was just fifty six days.

"II. Hyde Park conduit water alone. The mint weighed when put in, one hundred and twenty seven grains; when taken out, two hundred and fifty five grains: the whole quantity of water expended upon this plant, amounted to fourteen thousand one hundred and ninety grains. This was all along a very kindly plant, and had run up above two feet in height. It had shot but one considerable branch, but had sent forth many and long roots from whence sprung very numerous and short fibres. These lesser came out of the larger, on two opposite sides for the most; so that each root with its fibrilla appeared not unlike a small feather. To these fibrillæ pretty much terrestrial matter adhered. There was a green substance in the water, resembling a fine, thin conserva, which was at last thick and turbid.

"The plant I. The same water alone. The mint weighed when put in, one hundred and ten grains; and when taken out, two hundred and forty nine: the water expended was thirteen thousand one hundred and forty grains.

"This was as kindly as the former; but had shot no collateral branches. The roots of it, the water, and the green substance, all much as in the former.

"The plant K. The mint was set in Hyde Park conduit water, in which was dissolved an ounce and a half of common garden earth. It weighed, when put in, seventy six grains; when

taken out, two hundred and forty four grains: water expended ten thousand seven hundred and thirty one grains. Though this plant had the misfortune to be annoyed with very small insects, that happened to fix upon it, yet had shot very considerable collateral branches, and at least as many roots as either in H or I, which had a much greater quantity of terrestrial matter adhering to the extremities of them. The same green substance here that was in the two preceeding.

"L was set in Hyde Park conduit water, with the same quantity of garden mould as in the former. The mint weighed, when put in, ninety two grains; when taken out, three hundred and seventy six grains. And the water which was expended, was fourteen thousand nine hundred and fifty grains.

"This plant was more flourishing than any of the preceedent, had several considerable collateral branches, and very numerous roots, to which terrestrial matter adhered very copiously.

"The earth in both these glasses was very sensibly and considerably wasted, and less than when first put in. The same sort of green substance here as in those above."

"The plant M was set in Hyde Park water, distilled off with a gentle still. It weighed when put in, one hundred and fourteen grains; when taken out, one hundred fifty five: the water expended was three thousand eight hundred and three grains:

"This plant was pretty kindly, had two small collateral branches, and several roots, though not so many as that in H or I; but as much terrestrial matter adhering to them, as those had. The water was pretty thick, having very numerous, small terrestrial particles swimming in it, and some sediment at the bottom of the glass. This glass had none of the green matter above mentioned in it.

"N was set in the residue of the water, which remained in the still after that in M was distilled off. It was very turbid, and as high coloured (reddish) as ordinary beer. The mint weighed, when put in, eighty one grains; when taken out, one hundred seventy five grains. The water expended was four thousand three hundred forty four grains.

"This plant was very lively, and had sent out six collateral branches, and several roots.

"The glass O, had Hyde Park conduit water, in which was a dram of dissolved nitre.

"The mint, set in this, suddenly began to wither and decay, and in a few days died; as likewise did two more sprigs that were set in it successively.

"In another glass he dissolved an ounce of good garden mould and a dram of nitre.

"And in a third, half an ounce of wood-ashes, and a dram of nitre; but the plants in these succeeded no better than the former.

(To be continued.)

ARTICLE V.

ON IMPREGNATING CALCEOLARIAS, &c.

BY AN ENQUIRER

I HAVE just been told that Calceolarias can be successfully impregnated with blossoms of different genera, and the result is, that Calceolarias are produced from the seed, of a vast variety of colour. If my information be correct I should be glad if some person, or persons, who have tried it, would give a list in the Cabinet of the sorts of plants which have succeeded, in impregnating successfully the Calceolarias. Also when to sow the seed; how to treat the young plants, &c, so as to get them into bloom as early as possible. An article to be inserted in the November number would much oblige,

AN ENQUIRER.

ARTICLE VI

ON RAISING CARNATIONS AND PICOTEEES FROM SEED.

BY AN OLD FLORIST.

THE culture of the Carnation, though elaborately written upon by many with ability and experience, has in one point, and that a very material one, been either totally neglected or slightly or discouragingly mentioned, I mean the progressive improvement of the flower and its subvariety the Picotee, by raising new plants from seed. Hitherto we have been taught that the production of new and fine varieties of either Carnation or Picotee, is an extremely difficult and even arduous undertaking — the proportion being

from one to two good flowers to one hundred inferior and worthless plants. With this I perfectly agree, provided that the ordinary mode of obtaining the seed be pursued. We are told that it is a plant that never produces seed in considerable quantity, nor even any at all, unless in very dry and warm summers and under peculiar treatment, and even then with difficulty, arising as it is stated "from the extreme doubleness of the flower," a mistake originating either from ignorance of the natural structure of the flower and its physiology, or from want of sufficient experience in the writer. The Carnation is one of nature's most brilliant offerings to the flower garden, and although almost universally cultivated and admired for the symmetry and fine colouring of its blossoms, and for its delicate and grateful perfume, it is rarely seen in its fine varieties, some of which are really splendid and admirable, eclipsing all the flowers of its season, and making it as the pre-eminent ornament of the summer, as the Dahlia is of the autumnal months.

The scarcity of those fine flowers arises from two causes—first, from the jealousy of the few florists possessing them, who think them worthy of being exhibited and distributed to the initiated only; and secondly, from the neglect of raising plants from the seed of the best flowers, and from such only. Any florist who has sufficient energy and who wishes to derive more gratification from the culture of his Carnations, than he has yet enjoyed, may, by attending to the following directions obtain ample amusement and an abundant repayment for his time and trouble, in the production of many valuable and magnificent new flowers.

It is true that nearly all the blossoms of Double Carnations, if unaided by the hand of the gardener, will be unproductive of seed, but they are in very many cases capable of being made fertile. The organs of reproduction are in almost every instance fully developed, from the crowded state of the petals the operations of nature for production are defeated.

Every gardener and florist should know that plants are analogous to animals in their power of multiplying their kind, and require the co-operation of the sexes. In the Carnation, though ever so double, the male part of the flower or stamen is generally found, as is also the pistil of the female portion, together with the ovary, containing the embryo seeds, which may be observed by examining the blossoms of any double Carnations. The sexual distinctions are most easily distinguished. The florist, to be suc-

cessful in obtaining seed, has but to imitate nature, and by rendering his double flower as similar as possible to the single one facilitate her operations. This is done by extracting with a double pointed scissors the supernumerary petals, leaving only the outer guard leaves, taking care, however, not to injure the stamens or ovary. This should be done before the anthers burst and shed their pollen, in order that the petals may not prevent its falling on, and being received by the stigmas, which is the usual cause of abortion in the double blossoms of the Carnation; or the florist, if he pleases, may cut away the stamens, and apply the pollen of some other admired variety to the stigmas of the flower, thus deprived of its male organs, and so fertilize the embryo seed, which is the most advantageous way of proceeding, as the variety among the seedling plants will be more marked and beautiful; and curious to say, more like the father plant, or that from which the fertilizing pollen was taken, than the mother parent, or that which produced the seed. Semi-double flowers are more easily managed this way, and may be made fruitful with the pollen of your best double flowers. The production of flowers is often effected through the instrumentality of bees and other insects, when collecting either honey or pollen from the flowers; in such cases the seed is frequently lost by neglecting to protect the blossoms from too much wet, and to extract the decaying petals, quickly lose their beauty and brilliant colouring, and being no longer needed, wither and die; they should then be cut away, lest by retaining moisture, they should communicate disease to the base of the ovary (where the petals had been attached) which is of a spongy and light structure, and very liable to rot, if not preserved in a dry state. The stems should now be loosed from the stakes to which they were fastened, and the plants given as much air as possible. When the pericarpium has attained to half its size, it will be necessary to remove as much of the calyx or cup that contained the flower as can be done without injuring the seed-pods. The plants will now, need little further care until the maturing of the seed, when they must be carefully looked over every day, lest the pods should burst and loose their seed. When ripe, the pods should be carefully gathered and preserved unopened, until the following May, which is the most proper time for sowing, or the seeds extracted may be preserved in small well corked bottles, which is the mode usually adopted.

It has been stated, that layering Carnations prevents their

main trunk rising erect, surrounded from the summit to the base by smaller horizontal branches. But other trees, and these may be said to comprehend the greater part of the hard wood, do not rise with the same regularity. Instead of one leading upright trunk, they send out many large boughs, which rival in size the principal trunk: such trees become forked near the base, and the principal trunk below is short, while the top is largely branched.

Now this is a form of a tree which, however conducive to beauty, is not so to utility. The main object for cultivating wood is for the timber, and the greater part of the useful timber of trees is contained in the trunk before it begins to shoot out into boughs. In the artificial cultivation of wood, therefore, it is important to produce as great a length of trunk, in proportion to the branched top, as a due attention to the natural habits of the tree will allow.

Further, it is important for the obtaining of useful timber for the purposes of the carpenter, that the trunk shall be what is termed clean for as great a space upwards as possible. To understand the meaning of this term, when a branch shoots out from the side of a trunk of a tree, a part of the vegetable circulation is carried on through that branch; and hence there is at this place an interruption of the continuity of the circulation and thus alters its course. The fibres of the branch lie in a different direction from these of the main stem, and this, when carried to a certain extent, is injurious to the texture of the wood. These twisted fibres frequently constitute as it were a distinct mass of wood within the body of the trunk. They often form what are called knots, which greatly take from the usefulness of the timber for the purposes of carpentry.

For these reasons, it is important that as great a part of the lower trunk as possible, be freed from the lateral shoots.

Nature in part performs this process. As the tree rises in height, the lower branches decay and fall off, so that there are few trees in which, even if left to themselves, there will not be a certain portion of the lower stems, cleared of lateral branches. When trees are close together, this natural falling off of the lower branches takes place more quickly, and to a greater extent, than when they are distant from each other.

(To be continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

- 1.
- BEGONIA PLATINIFOLIA*
- .
- Plano leaved.*
- [Bot. Mag. 359].

BEGONIACEÆ. MONÆCIA POLYANDRIA.

This very large and handsome species was received in 1831 into the Edinburgh botanic garden from Berlin. It is a hothouse plant, growing to six feet high. The leaves are about ten inches across. The flowers are produced in cymes, each blossom being two inches or more across, nearly white. *Begonia*, in compliment to M. Begon.

- 2.
- BOLBOPHYLLUM COCOINUM*
- .
- The cocoa-nut Bolbophyllum.*
- [Bot. Reg. 1624.

ORCHIDÆÆ. GYNANDRIA MONANDRIA.

A native of Sierra Leone, and introduced into the country by Messrs. Loddiges, with whom it has bloomed, and the cocoa-nut scent is so powerful as strongly to perfume a whole house. The plant has also bloomed at J. Bateman's, Esq. Knypersly, Staffordshire. The blossoms are of a pale flesh colour.

- 3.
- CLARKIA RHOMBOIDEA*
- .
- Entire petalled*

ONAGRACEÆ. OCTANDRIA, MONOGYNIA. SYNONYM. *C. GAUROIDES*.

Seeds of this plant were sent from North West America by Mr. Douglas, and sown in the London Horticultural Society's Garden where the plant has bloomed. It is an annual, growing about two feet high. The flowers are an inch across, purple, and white near the bottom of each petal, spotted with purple. It much more resembles *Clarkia elegans*, than *C. pulchella*. Mr. Douglas has left some remarks on another species in California, closely allied to *C. rhomboidea*, viz. *C. unguiculata*.

- 4.
- CLEMATIS FLORIDA*
- ; var.
- SIEBALDI*
- .
- Siebold's Virgin's Bower.*
- [Bot. Flower Gard. 396.

RANUNCULACEÆ. POLYANDRIA POLYGYNIA.

This handsome flowering plant is a native of Japan, from whence it was introduced into this country by Dr. Siebold. It had been considered a distinct species, from that highly ornamental species, long known in the gardens of this country, viz. *Clematis florida*; but on a careful comparison, it is found to be a variety of it. The present kind deserves a place in every flower garden, or against a trellis, verandah, or wall. It is a free-growing sort, producing a profusion of blossoms, of considerable beauty. The petals are of a pale cream colour, suffused with a rich purple, having the appearance of a dark eyed centre; if the plant be grown on a dry subsoil, and in equal parts of peat and loam, it will flourish freely. It is easily propagated by layers.

- 5.
- CYMBIDIUM ENSIFOLIUM*
- ; var.
- ESTRIATUM*
- .
- Sword leaf streakless variety.*
- [Bot. Reg. 1976.

ORCHIDACEÆ. GYNANDRIA MONANDRIA SYNONYMIS. EPIDENDRUM ENSIFOLIUM, LIMNODORUM ENSATUM. CYMBIDIUM STRIATUM.

The present plant grows freely in the greenhouse, where it produces a profusion of pretty, fragrant, blossoms. The petals are whitish, sepals greenish white, the labellum is spotted and marked with crimson.

6. DELPHINIUM VIMINEUM. *Slender upright Larkspur.* [Bot. Mag. 3593.

RANUNCULACEÆ. POLYANDRIA TRIGYNIA.

The late Mr. Drummend sent seeds of this plant from the Texas to the Glasgow Botanic Garden, where it has bloomed. It is a hardy perennial species growing about a yard high. The stems are slightly branching. The flowers are produced in rich racemes, and are of a bright azure blue colour. It deserves a place in every flower garden, being highly ornamental from July to September.

7. DELPHINIUM TENUISSIMUM. *Short slender Larkspur,* [Botanist.

A hardy annual plant, introduced into this country in 1836, seeds of it were gathered by Dr. Schthorp, near Athens. It has bloomed in the Liverpool Botanic Garden, producing a profusion of flowers and seeds. The plant grows to about a foot high, producing its flowers in loose panicles, they are of a violet blue colour,

8. DIPODIUM PUNCTATUM. *Dotted flowered.* [Bot. Reg. 1980

ORCHIDACEÆ. GYNANDRIA MONANDRIA, SYNONYM, DENDROBIUM PUNCTATUM.

This terrestrial species of Orchideæ has been found in Van Dieman's land, as well as in New Holland, but more plentiful in the latter country. Mr. Jackson found it there flowering in December. It has bloomed in the collection of Messrs. Loddiges's. The stem is of a dark purple colour, rising from eighteen inches to two feet high. The flowers are numerous, produced on a cylindrical raceme. Each blossom is of a dark purple, spotted with blood colour, and are about an inch across, producing a very pretty effect. *Dipodium*, from *dis* two; and *pons podes*, a foot; alluding to the two stalks of the pollen masses.

9. EPIDENDRUM CORIACEUM. *Leathery leaved* [Bot. Mag. 3595

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

Charles, Parker, Esq. sent this species from Demerara to the Liverpool Botanic Garden, where it has bloomed. It had been considered by Mr. Shepherd to be a variety of *E. variegatum* but it appears now to be a distinct species; the leaves are more coriaceous, more lanceolate, shorter and less striated and acute; the spotting of the flowers are also very different. The flowers are produced in a spike, and the raceme contains from eight to ten. Each blossom is about an inch across, whitish, beautifully spotted with red. *Epidendrum*, from *epi* upon, and *dendron*, a tree, referring to its native situation.

10. HABRANTHUS ANDERSONII var. TEXANUS. [Bot. Mag. 3596.

AMARYLLIDÆÆ. HEXANDRIA MONOGYNIA.

Grows in a native state in Monte Video, and in Buenos Ayres. The scape is one flower. The flower is an inch and a half across, of a golden yellow colour, with the outside of the petals, striped with redish brown. *Habranthus*, from *ubras* delicate, and *anthos* a flower.

11. HOSACKIA STOLONIFERA. *Creeping rooted* [Bot. Reg. 1977

LEGUMINOSÆ. DIADELPHIA DECANDRIA.

The late Mr. Douglas sent seeds of this plant from California. It is a hardy herbaceous plant, forming a bush of a yard high, and has much the appearance of a shrub during summer. The flowers are produced in nodding umbels. Each blossom is small greenish, with chocolate coloured middles. The plant blooms in June and growing rapidly and bushy, is found to be valuable, has an under, shrub, filling up vacancies between shrubs. It increases rapidly by its creeping roots.

12. LUPINUS VERSICOLOR. *Party coloured Lupine.* [Bot. Reg.

LEGUMINOSÆ. DIADELPHIA DECANDRIA.

A hardy perennial species, a native of California, and has bloomed in the garden of the London Horticultural Society. The stems grow about two feet high, much branched. The flowers are produced in terminal spikes; the blossoms are variable between rose-colour, pale blue, violet, pink, and greenish white on the same raceme, but the lighter colours are generally towards the top of the raceme. It is a beautiful flowering species, and well deserves a place in every flower garden. The flowers are fragrant, something like the perfume of the field bean. It blooms from May to July, and produces abundance of seeds.

13. PLATYSTEMON CALIFORNICUS. *Californian.* [Brit. Flow. Gard. 391.

PAPAVERACEÆ. POLYANDRIA POLYGYNIA.

An hardy annual introduced into this country by the late Mr. Douglas. The plant grows about eight or ten inches high, branches terminating with pale straw coloured blossoms, each about an inch across. The flowers much resemble the wild wood Anemone of Britain, only differing in colour. *Platystemon* from *platys* broad, and *stemon* a stamen, alluding to the broad filaments.

14. RHODENDRON ARBOREUM var. CINNAMOMEUM. *Cinnamon coloured tree Rhododendron.* [Bot. Reg.

ERICACEÆ, DECANDRIA MONOGYNIA.

In 1822 Dr. Wallich sent to this country, from India, a quantity of seeds of this plant, one of which has bloomed in the nursery of Messrs. Rollison at Tooting, Surrey. The present variety is very like the white sort which has previously been noticed and been cultivated in our gardens for ten or twelve years, but the clusters of flowers are more compact, and the purple spots on the white petals are larger, darker and more numerous. The white of the flower is not quite so clear as in the old kind. The present kind deserves a place in every shrub border.

15. BLUMENBACHIA MULTIFIDA. *Multifid leaved.* [Bot. Mag. 3599.

LOASÆÆ. POLYDELPHIA POLYANDRIA.

A native of Buenos Ayres, and discovered there by the late Dr. Gillies. It has since been discovered by the late Mr. Tweedie, and by him seeds were sent to the Glasgow Botanic Garden. This species is very distinct from *B. insignis*, being a much stronger growing plant, more compact, and more bespiced with strings. It is perfect hardy. The leaves are much larger, but like *B. insignis*, they are much lobed. The flowers are about an inch across, white, with a yellow, and red centre.

16. BRODIEA GRANDIFLORA. *Large flowered.* [Botanist.

LILIACIÆ. TRIANDRIA, MONOGYNIA.

A bulbous rooting plant, a native of Georgia, on the north-west of America. Bulbs were sent by the late Mr. Douglas, to the London Horticultural Society. The flower stem rises to eight or ten inches high, terminating with an umbel of about six flowers; each flower is campanulate, about an inch across, of a pretty blue colour. It is quite hardy and flourishes freely if grown in a shady situation, and planted in peat soil. *Brodiea*, named in compliment to James Brodie, Esq. of North Britain.

17. SILENE CHLORÆFOLIA. *American c. leaf.* [Bot. Reg. 1989.

SILENACEÆ DECANDRIA TRIGYNIA.

A hardy perennial plant, producing numerous pretty flowers, of a pure white, delightfully fragrant. Each flower is rather more than an inch across. It is a most desirable plant for either the flower border or a rock work.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES

ON THE COLOURS OF DAHLIAS.—The difficulty which occurs in ascertaining the real colours of Dahlias, causes very considerable confusion, and unpleasantness between exhibitors have frequently arisen in consequence. Would it not effect the desired object if each Floricultural Society were to have a specimen card of colours, and for each exhibitor to purchase one, or have them gratis, at the time each exhibitor enters for competition.

If such cards of colours were obtained by every society from one source, a general correct understanding of each colour would prevail.

Middlesex, Aug. 18th.

W. W.

ON PRUNING RHODODENDRONS.—What should be done with respect to Rhododendrons when they grow straggling, as I am afraid of cutting them, lest I should injure the bloom for next spring. If some reader of the Cabinet, who has had practical instruction, would favour me with a reply, I should be greatly obliged.

KALNIA.

[We have frequently cut in straggling growing Rhododendrons, and they have made fine showy plants by the second summer. The time we have cut in the branches was early in April. Several young shoots were generally produced upon each branch, and lest they should be too close we thinned out a portion, and left not more than three or four. By cutting in the branches at this early season, the plants were not only more certain to push shoots than if cut late, but the young shoots had time before the autumn to grow vigorously, and be sufficiently ripened to withstand the effects of severe frosts without injury; whereas, if cut late in summer, the young shoots would be so tender as to be very liable to suffer by frost.]

The young shoots produced by cutting in the branches, has never produced bloom till the second season. Where a plant has a few short branches, and a number of straggling ones, the latter may be cut and the former left, which, if they have flower buds upon them, will produce a bloom, and the branches cut in push new shoots.—(CONDUCTOR.)

REMARKS.

NEW PLANTS, &c.—*Calchortus unustus* and *C. splendens*, these are now in bloom, and are highly deserving a place in every flower garden, we gave figures of them soon after their introduction into this country.

Spiraea Japonica. This new species, producing white flowers, is very neat and handsome, and well deserves cultivation. It is a hardy herbaceous plant, flowering very profusely.

Anagallis Phillipsii. We gave a figure of this plant some time ago. It is a most profuse bloomer, of a splendid blue colour, and the flowers of a large size. It is a charming plant for the greenhouse or open border. A bed of it is splendid.

Pentstemon Murryanus, is a most splendid flowering plant, producing when grown in the open border in summer, spikes of flowers six feet high. We have seen some even higher.

ON THE SENSITIVE PLANT.—The movement of the leaves of the *Mimosa Pudica* have their origin in certain enlargements, situated at the articulation of the leaflets with the petiole, and of the petiole with the stem. Those only which are situated in the last articulation are of sufficient size to be submitted to experiment. If, by a longitudinal section, the lower half of this swelling be removed, the petiole will remain depressed, having lost the power of elevating itself:—if the superior half be removed, the petiole will remain constantly elevated, having lost the power of depressing itself. These facts prove that the motions of the petiole depend on the alternate turgescence of the upper and lower half of the enlargement, situated at the point of articulation; and that contractibility is not the principle of these motions.

If one part of the plant be irritated, the others will soon sympathise, or bear witness, by the successive falling of their leaves, that they have successively felt the irritation:—thus, if a leaflet be burnt slightly by a lens, the interior movement which is produced will be propagated successively to the other leaflets of the leaf, and thence to the other leaves on the same stalk. A very clever French experimentalist, Mons. Dutrochet, found.

1st—That this interior movement is transmitted equally well, either ascending or descending.

2nd—That it is equally well transmitted, even though a ring of bark has been removed.

3rd—That it is transmissible, even though the bark and pith be removed so that nothing remain to communicate between the two parts of the skin: except the woody fibres and vessels.

4th—That it is transmissible, even when the two parts communicate merely by a shred of bark.

5th—That it may be transmitted, even when the communication exists by the pith only.

6th—But that it is not transmissible, when the communication exists merely by the cortical parenchyma.

From these very interesting experiments, it results that the interior movement produced by irritation, is propagated by the ligneous fibres and the vessels.

The propagation is more rapid in the petioles than in the body of the stems:—in the former it moves through a distance of from three to six tenths of an inch in a second; in the latter, through from eight to twelve hundredths of an inch, during the same portion of time. External temperature does not appear to exert any influence on the rapidity of the movement, but very sensibly effects its extent.

Absence from light, during a certain time, completely destroys the irritability of the plant. Such change takes place more rapidly when the temperature is elevated, than when it is low. The return of the sun's influence readily restores the plant to its irritable state. It appears, therefore, that it is by the action of light, that the vital properties of vegetables are supported, as it is by the action of oxygen that those of animals are preserved, consequently, etiolation is to the former what asphyxia is to the latter.

Gardener's Gazette.

C. MACKENZIE.

THE CAUSES OF THE VARIETY AND VIVIDNESS OF COLOURS IN FLOWERS.—The petals of flowers do not owe their beauty to the colour that paints them; for that, when drawn off, is dull and dead, neither do they owe their brilliant tints to the skin that covers them. Their lovely appearance is derived chiefly from the bubbles of water which compose their pabulum. Receiving the sun's rays, they are enlivened and brightened by reflection and refraction from those drops of water; and from that spot or point of light being seen in every bubble, and striking to the focus underneath. By these means the whole flower would at times be one blaze of light had not nature to soften the same, covered the petal with an upper and an under skin which curtails their diamond-like rays, and leaves them, instead, a lightness and beauty unequalled by the most exquisite art of the painter.

In order to prove that bubbles of water are the true cause of the beauty which flowers transmit, either in vivid flashes or tender tints, to the human retina; we have only to take the dullest colour that was ever mixed or painted, and filling a small glass bubble with water, let the rays of the sun fall through it on the said colour, it will become the brightest and most beautiful imaginable, and exactly resemble the tint of flowers. The moist petal is so filled with water, that it only excites our astonishment how such a thin gauze like matter can contain such a quantity of liquor, and yet the flower reposes on the hand without wetting it.

To shew, however, that some of our flowers may owe their beauty to other contrivances besides pabula filled with water, we may instance a common one which adorns our fields, viz. the ranunculus or butter cup. The petals of this very pretty wild flower appear to be varnished. but, on examination, we find that this is owing to a white powder resembling magnesia which lies between the pabulum and the upper skin. 'To try the effect,' says Mrs. Ibbetson, whose experiments on the physiology of plants have placed her in the first rank of natural philosophers, "I got a quantity of extremely small glass bubbles containing water blown for me, and I placed them in a petal, in rows: although infinitely larger, yet they appeared to be a petal greatly magnified. I covered them with a piece of gauze, painted so as to resemble a flower, and truly did it imitate the sort of brightness and brilliancy which it was intended to represent."

GARDENER'S GAZETTE.

LONDON HORTICULTURAL SOCIETY. August 1st.—Dr. Lindley read a paper from Mr. J. Ingram, gardener at Southampton, on a simple and effective mode of killing the red spider, thrip, scale, and green fly, without injury to the plants. It merely consisted in putting the pots into a frame well closed, and then putting laurel leaves well bruised between them, when in the course of one hour, the whole of the red spiders and green flies would be destroyed by the odour: the plants were then to be removed into a hot place. For a house twenty feet by twelve, the quantity of two bushels of leaves would be amply sufficient, which might be bruised in the place which was to be covered and surrounded by matting, so as to prevent the escape of the odour. For the destruction of thrips and scales about eight hours was sufficient, and the experiment succeeded best at night: the plants afterwards to be removed to a hot place, when the insects would soon die and drop off.

Dr. Lindley read the following address from the Council of the Society to her Majesty, which had been presented on the throne by the Duke of Devonshire, requesting her to become the patroness of the society.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

Most gracious Sovereign:

We your Majesty's most dutiful and loyal subjects, the president, vice presidents, and council of the Horticultural Society of London, beg leave most respectfully to approach your royal presence, and in the name of the Society to offer our sincere condolence on the decease of his late Majesty our gracious patron.

Yet whilst in common with all classes of his Majesty's subjects we deplore the loss which the nation has sustained, by the removal of so munificent a patron of science, we are not the less sensible of the gratitude we owe to Divine Providence, for having blessed us in the person of your Majesty, with a successor, whose accomplished mind and enlightened views, are the theme of universal applause, and eminently calculated to adorn the throne of a kingdom, now justly celebrated above all others for the splendour of its gardens, and the devotion of its inhabitants to the peaceful occupation of horticulture.

While we humbly presume to take credit to our society for the improvement in public feeling, which has taken place in this respect, we gratefully acknowledge the service which we have derived from the royal countenance; and as the love of natural beauty, and the cultivation of the fine

Kennedya marryatta.

Schelus.

*azura
granuliflora.*

propinqua

arts are especially innate in the female breast, we confidently anticipate that a pursuit which is so completely identified with the advance of civilization, will flourish with renewed vigour, under the fostering auspices of your Majesty.

We therefore beg to offer our most heartfelt congratulations on your Majesty's accession to the throne of your ancestors, and venture humbly to solicit your Majesty's renewal of that patronage which has been accorded to this society by your royal predecessors since the period of its institution, and earnestly pray that your Majesty's reign may become illustrious by the general cultivation of all those arts of peace which are so eminently conducive to the wealth and beauty of the country, and the enjoyment of all classes of your Majesty's subjects.

Given under our corporate seal, at the rooms of the Horticultural Society, Regent Street, London, 22nd day of July, 1837.

Signed on behalf of the council, DEVONSHIRE.

A letter was read from his Grace, addressed to the secretary intimating that her Majesty has signified her intention to be the patroness of the society.

The first objects pointed out to the meeting were several orchideous plants contained in different collections in the room. The most interesting of these were *Zygopetalum rostratum*, from Mrs. Lawrence, a specimen of the same from Mr. Bateman, as also of *Acropora Loddigesii*, *Stanhopea insignis*, and *Gongora atropurpurea*. Mr. Pratt, of Cheshunt, exhibited a strange and interesting variety of *Stanhopea insignis*, and Mrs. Marryat, a new variety of *Oncidium Carthaginensis*, a little modified in the formation of the flowers. The most remarkable specimen was, however, *Cattleya crispata*, from Mr. Paxton, than which it would be difficult to find anything displaying more skill or beauty in cultivation, whether in shape, form or flower. It had been previously never seen with more than three, four or five flowers, but the present specimen contained seven, in which the interesting characters of the plant were all apparent. Accompanying this were three specimens of *Stanhopea insignis*, the cultivation of which had never before been so perfect but in the hands of Messrs. Loddiges, and these with the former specimen, exhibited the display of no ordinary skill.

Mr. Cox, of Cranford exhibited a beautiful tray of Carnations and Picotees; Mr. Hogg, a tray of Carnations; Mr. Salter, of Shepherd's bush, several Dahlias which were very good for the season. Mrs. Marriot exhibited a tray of Verbenas, of almost every variety and colour, *Tasconia pinatispula*, and *Campanula fragrans*, a plant which has lately come a great deal into cultivation in the neighbourhood of London, although it was thought it would be unsuccessful. It grows wild in Naples, and other parts of Italy on rocks and other wild places, having a magnificent appearance, covering the crevices of the former with its large and beautiful blue flowers. Mr. Hooker exhibited a large collection of roses. Mr. Moore, gardener to Miss Garner of Wickham, Hants, exhibited a new Orchidea from South America, a variety of *Petunia* from P. Nyctaginiflora; and a variety of *Dianthus* from D. Superbus.

From Mr. Lawrence were 13 Heaths, many new and interesting varieties, particularly *Erica viridiflora* bearing a small and neat green flower.

REFERENCE TO PLATE.

LOBELIA PROPINQUA, a most splendid flowering species quite hardy. It likes a deep rich soil, and as all the other Lobelias of its section do, plenty of water in the growing season. If thus attended to, it will produce numerous spikes of flowers rising to the height of four or five feet. It deserves a place in every flower garden or greenhouse.

LOBELIA CÆRULEA GRANDIFLORA, this fine Hybrid variety, is quite hardy, producing numerous flower spikes, which rise from two to three feet high, and make a very striking contrast when placed near to the *Propinqua* ful-

gens, &c. Like those kinds, the present is free of production, and easy to cultivate.

KENNEDIA MARRYATTI, Mrs. Marryatt's *Kennedia*, a most beautiful flowering greenhouse climber, well meriting a situation in every collection of this tribe of plants. It flourishes well in sandy peat, having a good drainage.

FLORICULTURAL CALENDAR FOR OCTOBER.

PLANT STOVE.—Plants of Cactuses that have been kept in the open air or greenhouse, now put into the stove, will bloom immediately.

GREENHOUSE PLANTS.—Those plants that were removed into the greenhouse last month, should have plenty of air given them every mild day; but the lights should be close shut up at night, also when cold, damp, wet, or other bad weather prevails, excepting a little at the doors, about the middle of the day. The plants should not be watered in the "broad-cast" manner as it is termed; but should be attended to singly, so that no plant may be watered but what is actually dry. Water should not be given in the evening but in the early part of the day, so that damps may be dried up before the house is closed. If watered in the evening, the damp arising during the night will cause the leaves to decay, and encourage moss, lichens, &c. upon the soil. This will invariably be the consequence, unless fire heat be applied to counteract the effect. The soil in the pots should frequently be loosened at the surface, to prevent its forming a mossy or very compact state.—Camelias, if wanted to flower early, should be placed in a stove.

FLOWER GARDEN.—&c. Auriculas must now be removed to their winter habitation, all dead leaves must be picked off as they appear, or the plants will be liable to injury from rotting, &c. Carnation layers potted off should be placed for protection during winter. Offsets of the herbaceous kinds of *Calceolarias* in beds or borders, should now be potted off, having well-drained pots and a light soil. The plants should be kept in a cool frame, or a cool greenhouse; very little water must be given them, or they will damp off. Cuttings of all kinds of greenhouse plants that have been grown in the open border, in beds, &c., such as *Heliotropes*, *Geraniums*, shrubby *Calceolarias*, &c. should be taken off as early as possible in the month, and be stuck in heat, in order to have a supply of beds, &c. the next year. If frost is likely to cut off the tops by the end of the month, the plants should be taken up, and placed very closely in boxes, large pots, &c. for preserving during winter. Water freely after potting off, but little afterwards at the roots till the plants have struck root, they may occasionally be sprinkled over the tops. Do not place the plants in heat, to cause them to strike, for if this be done, most of the plants will fail, a cool frame or greenhouse is suitable. Hyacinths and other bulbs, should be potted early in the month, for forcing, &c. Seeds of *Schizanthus*, *Stocks*, *Salpiglossis* and similar kinds of plants, desired to have in flower early next season, should be sown the first week in the month in pots, and be kept from frost during winter. Seeds of *Panicles* may be sown early in the month, in pots, and be protected in a cool frame, also plants taken up and to be protected unless they be grown in a sheltered dry situation. Pinks, if not already planted off should be done early. Perennial and biennial flowers, may be divided, and planted off where intended to bloom next year. Flower beds, borders, &c. should be dug, and an addition of fresh soil be laid in them so as to raise the surface, and the roots of all plants may be covered, to be a protection during winter; this should be attended to by the end of the month. Any tender kinds of border plants that are liable to injury during winter, should be potted and placed for protection. To *Dahlias*, a cover of soil round the roots should be given, lest a sudden frost coming should injure the crown buds; seeds should be collected before damaged by frost. Seeds of all kinds of flowers not yet gathered, should be collected early in the month, or they will be liable to injury by frost.

THE
FLORICULTURAL CABINET,

NOVEMBER 1st, 1837.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.
ON PRUNING, THINNING, &c. OF TREES IN PLANTATIONS, WITH
OTHER REMARKS UPON THEM.

BY MR. JOSHUA MAJOR, LANDSCAPE AND ARCHITECTURAL GARDENER,
KNOSTHORPE, NEAR LEEDS.

I HAVE taken the liberty of sending you a few remarks on the very defective manner in which plantations are generally managed, as far as regards ornament, hiding disagreeable objects and effecting convenient and secure places of retirement; trusting through the medium of your widely circulated Cabinet, should you deem them worthy of insertion, that my remarks may have some tendency towards abolishing the evil I have to complain of.

I find wherever I travel, and in whatever country my profession calls me, very great and glaring defects in plantations, arising in nine cases out of ten from the want of judicious and early thinning. Now, could we but persuade gentlemen, and persons who have the management of such plantations to commence thinning a few years after planting, and to continue to do so, at least once in two or three years, as it is necessary, the defects I complain of would be prevented, and the objects I have in view would be effectually attained.

The method I would recommend to be pursued, is as follows :

1st, Make choice of such trees, as are likely to remain where they are planted, and at each successive thinning, clear off a few of their lower branches, Wych, Elm, Birch, Lime, &c. should be trimmed to the lowest stem ; and the formal upright kinds, such as the Horse-chesnut, Sycamore, Mountain-ash, &c. to the shortest stem.

2nd, Cut down from time to time, as occasion requires, such other trees as appear to crowd these, by this means the adopted plants will have room to bestir themselves, and they will be found severally to form extensive and massy branches, calculated at once for ornament and use, and one single tree, will eventually afford a screen equal to a hundred of these neglected skeletons we are at present confronted by wherever we turn ourselves. I do not mean that plantations should be always equally thinned : let the trees be occasionally at various distances ; for instance, two, three, four, five, or more may stand in a group, set from three to five yards from each other ; which, although near together, may still become fine ornamental trees, provided sufficient room be left all round to allow their branches to extend with freedom ; and indeed, in order to produce a proper effect, and to have groups and masses of different sizes, different distances must be adopted ; instead of which, we generally find plantations almost totally neglected for the space of fifteen or twenty years, and sometimes even longer, and that too, although the trees were planted at first at no greater distance than three or four feet from each other. Such mismanagement must necessarily cause the branches to decay and fall off ; and consequently leave the trees little better than mere naked poles, but miserably ill calculated to form a screen, and ornament the surrounding landscape.

The other day on a journey into Derbyshire, I was forcibly struck with the necessity of something being immediately said on a subject so important.

I noticed on each side of the high road plantations that have stood at least thirty years ; the trees were from three to four feet distant ; in consequence of which they had long been divested of their principal branches, which rendered them entirely useless as a screen, for which purpose they appeared originally to have been planted. I am not sure whether they did not belong to some nobleman, but, however, it is no uncommon thing

for similar defects to present themselves in large domains, even where woodmen are kept, which certainly reflects no credit on the owners.

I frequently find it a difficult matter to persuade gentlemen to allow their plantations to be thinned, and their trees to be cut down; but wherever I have prevailed, the alterations have never failed to give entire satisfaction. I was called in some few years ago, to alter the grounds of a baronet; who, while I was inspecting, directed my attention in particular to a plantation of at least fifteen years standing, formed for the purpose of concealing the kitchen garden. This partly from want of thinning, and partly owing to the prevalence of that odious tree (the black Italian Poplar), appeared to be a complete wilderness. I immediately directed the gardener to mark with white paint at least one half of them to be cut down. The baronet expressed his surprise at the number, and said he was sure Lady ——— would be distressed at the idea of so many being removed; however, it was agreed upon that they should be taken down before her ladyship took her morning walk. I left before the operation was performed; and to my great surprise, although all my other plans had met with their unqualified approbation, in the course of a few days I received a letter stating, that only one half of the number I had caused to be marked, had been cut down, and that the rest were to remain till I had paid another visit; and hoping that I should consider that sufficient, so reluctant was my kind employer to cut down his trees. Notwithstanding which, I still persevered in recommending the rest to come down, which was very reluctantly agreed to, and down they came, and undergrowths of common Laurels, Hollis, Yews, Dogwoods, to be introduced in their room; for it may naturally be supposed that their having been suffered to crowd each other so long, would entirely prevent them from ever assuming the form and beauty they would otherwise have done, had early pruning been attended to. My advice was followed and the nobleman has since called upon me, and expressed himself highly gratified with the improvements produced. On these grounds were several masses of silver firs, which would certainly have been the finest of the kind I ever saw, had they been properly managed; they were seventy or eighty feet high, but I am sorry to say it, destitute of branches to within ten or twelve feet of the top, instead of being furnished nearly to the ground, as

they might have been, had they been planted at a proper distance at first, and judiciously thinned afterwards.

A similar feeling prevailed with another baronet a year or two ago, who, although he professed to know a good deal about Landscape Gardening, had not acquired sufficient of the art to enable him to preserve either the form, or grandeur in the growth of his trees; for many old ones about the house were crowded to excess, and drawn to an immense height nearly destitute of branches; and there they remain to this day, as if to reproach him for his obstinacy.

I am employed at present in laying out a park and pleasure grounds, and the only obstacle that has occurred to frustrate the whole of my designs, is that of cutting down trees. The opposition rose on the part of the lady of the house, who, I must confess, possesses considerable taste, though in this particular case she was decidedly wrong. I was two years in obtaining her consent to remove two trees standing in a large mass, in order to open out a narrow vista. At last, on a late visit, I so far prevailed, by the aid of another gentleman, who happened to be dining with us, as to be allowed to remove one first in order to see the effect; and although this shewed a good deal of my object, I was not allowed to take down the other. However, we hit upon another expedient, we contrived to cut the top off the other, so as not to disfigure the tree, and this entirely answered the end I had in view, and opened one of the prettiest vistas I ever beheld: in short we were all highly delighted with it. I have adduced these instances which have come under my observation, to shew the necessity of drawing the attention of gentlemen towards the management of their trees, as far as regards effect and ornament, and to encourage them to dash away their fears, and not to allow them to predominate to the injury of the landscape.

These are not fanciful speculations, they are the result of much practice and careful observation. Before I conclude, allow me to remark that the general practice of introducing nurse plants, as they are termed, into plantations, seldom proves to answer the purpose intended, resulting in a great measure from the want of early attention. The Italian Poplar and the Larch, for instance, are of such rapid growth, that in four or five years they will overpower, and materially injure the Oak, the Beech, and in short, nearly every other kind of tree; consequently, at that

period care should be taken to relieve such by lopping off the branches of the nurse plants, and cutting down others as may be required.

I am decidedly against the introduction of the black Italian Poplar, either as a nurse plant for shelter, or any other purpose, unless it is quite certain that the whole are to be removed in due time: as it is at no period of its growth to be admired, but generally exclusively ugly. When young it never harmonizes with other trees, and as it advances in growth, it soon becomes disproportionate, top heavy, and in the end so over-balanced as invariably to bear on one side, and frequently to become nearly prostrate. Indeed I am opposed to the family of Poplars generally, except the Lombardy, which I should be sorry to condemn; on the contrary, when judiciously planted in groups, of from three to fifteen, in deep vallies, in dense masses of trees, or woods, and in connexion with churches or other buildings, especially those of the Gothic and Elizabethian style, a happy effect will be produced: but the country generally has become barbarously disfigured, by the introduction of most of the other kinds, (but more especially the black Italian) that could I raise a hue and cry against them, so as to have them totally banished from the country I should consider I had done justice to my own feelings, and to those of every one possessing true taste to Landscape scenery; but am I not speaking too hastily? Is not the Poplar the darling of a Professor of Landscape Gardening, who has scarcely known how to say enough in its praise? Ought he not to possess a taste for Landscape Gardening, he ought, and does, but what kind of taste is it, such a one it is hoped he now heartily repents of, let him look round and see what frightful objects he has reared in many parts of the country; and surely his conscience will tell him he has done mischief enough already, and the only way in which he can redeem his credit with the country, is to recommend the axe instantly to be laid to their roots, and at one fell sweep, exterminate them all.

I will now conclude with a hope that my early remarks on thinning, &c. may be of service, if not to those who have plantations of long standing, at least to those who are forming new ones—and advising that they will above all things keep out that frightful object, the black Italian Poplar.

J. MAJOR.

ARTICLE II.

A LIST AND PROPORTIONS OF COMPOST SUITED TO THE SUCCESSFUL GROWTH OF THE PLANTS AS DESCRIBED IN THE FOLLOWING LIST

BY AN OLD SUBSCRIBER, PIMLICO.

AGREEABLY to my promise I now send you a list of composts for plants, which I have selected from the excellent practical observations given upon each, in various papers that have been inserted in the Cabinet; and I doubt not but bringing the subject into this condensed form, will be a ready reference, and prove useful to the readers of the Cabinet.

COMPOSTS FOR PLANTS.

Name.	Loam.	Peat.	Hot-bed Manure.	Vegetable Mould.	Sand
Acacia	1	1	0	0	1-half
Anagallis	2	1	0	1-half	1-4th.
Anemone	1	0	1	1	1-3rd
Annuals	2	0	1	0	0
Arctotis	1	1	0	0	0
Asters	1	0	Tf. Ash. 1-6	1-sixth	0
Auriculas	1	0	Cow D. 1 each.	1	1-4th.
Banksias	1	1	0	0	1
Bouvardias	2	1	1-half	1-half	1-4th.
Bulbs, Cape	1	1	0	1	1
Do. Dutch	2	0	1 C. D.	1-half	2
Brugmansia	2	0	1	1	0
Begonias	1	1	0	0	0
Calceolarias	1	1	1 fourth	0	0
Campanulas	1	1	1	0	0
Camellias	1	1	1 half	1-half	1-half
Carnations, Pinks & Picotees	2	0	1	0	1-4th.
Chrysanthemums	1	0	1	0	0
Cistus	1	1	0	0	0
Commelinas	1	1	0	0	0
Correa, speciosa	1	1	0	0	1-4th.
Cyclames	1	1	0	0	1-4th.
Cyrilla, pulchella	1	1	0	1	1-half
Dahlias	2	0	1	0	1-3rd
Daisies	2	0	1	1	0
Eccremocarpus, scabre	2	0	1	1	0
Epacris	0	2	0	0	1-half
Ericas	0	2	0	0	1
Eutaxias	2	1	0	1-half	1-4th.
Fuchsias	2	1	1	1	0
Gardenia	1	2	0	2	0

Name.	Loam.	Peat	Hot-bed Manure.	Vegetable Mould.	Sand
Gloxinias	1	0	1	0	1
Green-house Perennials	2	1	0	1	1
Heliotropes	1	1	1	1-half	0
Hydrangeas	2	0	1	1	0
Lobelia	2	0	0	1	1
Lophospermum, scandens ..	2	0	0	1	1-half
Maurandia	2	0	0	1	1-half
Mesembryanthemums	1	1	0	0	1
Mignonette	1	0	0	1	1
Mimulus	2	0	1	1	1-half
Myrtles } hot-bed dung rot- } ted to mould.	0	0	0	0	0
Nierembergias	2	0	0	1	1-half
Oxalis	1	2	2	0	0
Oranges	4	0	0	1	0
Pansies	2	1	1	0	0
Pelargonium	1	1	1	1	0
Pimelias	0	2	0	0	1
Polyanthus	1	0	1-8th.	1-8th.	1-8th.
Primula sinensis	1-half	2-3rds.	0	1	1-3rd
Ditto. common	1	1	0	1	0
Ranunculus	1	0	1	1	1-3rd
Roses, Climbers	1	0	1	0	0
Ditto. Noisette	1	0	1	0	0
Ditto. Perpetual	1	0	1	0	0
Ditto. Odorata	1	1	1-half	1-half.	0
Ditto. Standard	1	0	1	0	0.
Salpiglossises	1	0	0	1	1-3rd
Salvias	1	1	1	0	0
Senecio, elegans	1	0	0	1	0
Succulent } 2 turfy, & 1-part Plants } Lime Rubbish } from old buildns.	0	0	0	0	0
Tuberose	2	0	1	0	1-4th.
Tulips in pots	2	0	C.D. 1.	1-half.	2
Ditto, in Borders	3	0	1	1	1-half.
Verbenas	1	1	1	0	0
Violets	1	0	1	1	0

ARTICLE III.

ON THE CULTIVATION OF ALSTROMERIAS.

BY MR. W. SCOTT, GARDENER TO CHARLES BARCLAY, ESQ. M.P., F.R.S.

As the Alstromerias exhibited by Mr. Barclay, on the 7th of June, 1834, at the Gardens at Chiswick, were so generally admired that

in thickness as the main stem increases, and in the same manner, namely, by the adding each year of a layer of wood all round. It does not therefore commence at the surface of the tree, but in the interior, and each year increase in diameter. The sooner, therefore, that this branch is removed, the less will be the twisting of the main stem at this part.

As in the practice of pruning there are two distinct purposes to be aimed at; first, giving the vertical tendency to the tree; and, second, obtaining as great a portion as possible of clean stem; so there are two periods in the growth of the tree at which these objects are to be attended to. The first in the order of time, is giving the vertical tendency to the tree, and the second, the denuding it of its lower branches.

Until the tree has attained the height of fifteen or sixteen feet, the only object that need to be attended to is to give it the upright tendency in question, and to prevent its becoming forked.

The pruning for this purpose consists in merely shortening such branches as may be rivalling the leading shoot, or stretching out laterally with a growth disproportioned to that of the others. Frequently the mere nipping off of the terminal bud will be completely effected by shortening the shoot, making it about half the length of the shoot above; this is the sole purpose of pruning during the first period of the growth of the tree; and it is to be observed, that if a tree be of itself tending to grow upright and without forking, no pruning, even of this simple kind, is required. For of all pruning it is observed, that it is a violence done to the plant, and is to be avoided as much as possible. By cutting off branches and leaves, we cut off organs of nutrition. We do not prune that we may increase the quantity of wood, for the operation has quite a different tendency and effect; but we prune that we may give to the tree that form which is calculated to produce the greatest quantity of timber in the proper place.

The other branch of pruning, and next in the order of time, consists in denuding the lower part of the trunk of branches, so that there may be obtained a sufficient extent of clean wood. Although, for the reasons given, it is important that the taking off these branches be at as early period as possible, yet this must be done always under the conditions necessary to preserve the health of the tree. The tree should, in the first place, have attained sufficient strength and age to bear the being deprived of

its branches; and in the next place, the process should be carried on so slowly as not to effect the healthy growth of the plant, and so gradually, that it may have vigour to cicatrize, or cover with bark, the wounds that have been made upon its surface. The period when we may safely commence this process of denudation, is when the tree has attained the height of fifteen or sixteen feet.

Now, every tree adds to the length of its leading shoots and branches from buds which grow on the end of the shoots. Every year a new shoot is made from the end of the buds, of a length proportioned to the vigour of growth of the plant. The shoots thus formed in one year, produce each a bud, which, in like manner produce shoots in the following year; and thus while the tree is growing, there is a continued increase of the length of its leading shoots and branches. Further, when the annual shoot of any branch is produced, there is usually sent forth at the place where it originates one or more lateral shoots, so that there is a succession of branches, or tier of branches from the base to the summit. Were these lateral branches not to fall off, we could, by means of them, ascertain the age of the tree, and in the case of many of the Coniferæ, we can frequently ascertain the number of years which they have lived, or that each individual branch has taken to grow, from the number of these annual shoots alone. A knowledge of this mode of growth will conduct us to a simple rule in practice for removing, without violence, the lower branches of the trunk.

When we commence this process of pruning off the branches of the stem, let us cut off the lowermost branch or tier of branches, that is, the branch or branches of one year's growth, and no more: in the second year let us cut off a second tier, in the third year a third tier, and so on. In this manner, while the tree in each year makes one shoot vertically, the lateral shoots of another year is cut off below. Thus, a tree having made fifteen shoots, and having risen, we will suppose, to the height of fifteen feet, we commence the process of pruning by cutting off the lowermost set or tier of branches. The tree then makes a shoot at the top, so that while we have cut off the lateral shoots of one year, another year's vertical shoot will be made. The next year we prune away the branch or tier of branches, and again the tree makes a shoot at the top. In the third year we cut off, as before, and again the tree makes a shoot upwards; and so we

take off each year the lateral shoots of one year, and never any more.

By this method we shall gradually denude the stem of its lateral branches from below upwards, while it is increasing in vertical growth. The extent of clear trunk will thus gradually become larger in proportion to the uncleared portion or top. Thus, suppose we begin to prune when the tree has made fifteen years' shoots, then when it has made thirty years' shoots, we shall have cleared off fifteen; that is, half the height of the tree.

Now, when we have cleared half the height of the tree, or a very little more, we should pause in our further operations, and mark its state of growth. If it continue to grow vigorously, we may resume our operation of close pruning, but at longer intervals than before, so as never in any case to have cleared away more than one half, or at the utmost three-fifths, of the height of the tree, and never taking off more than one years' lateral growth of branches in a season.

Every tree, it is observed, must possess a sufficient top; that is, it must extend horizontally as well as vertically, so as to bear branches and leaves. The leaves are organs of nutrition of the plant, essential to the healthy exercise of the vegetable functions, and we must be careful to deprive it of no more of these organs than consists with our purpose of pruning. Now, by proceeding slowly in this gradual manner, never taking off more in any one year, than the growth of one year's lateral branches, we shall not usually interfere with the healthy growth of the tree, but shall always leave it a sufficient power of expansion at top, as to afford it the means of nutrition and growth. Further, by never cutting off more at a time than the growth of one year, the tree will generally have vigour to cicatrize the wounds that have been made upon its trunk; whereas, were we to lop off many branches at a time, according to the practice too prevalent, the tree might not have vigour to cover them with fresh growth of bark, and thus the wounds might remain, to the lasting injury and frequent destruction of the tree.

In pruning in this manner the branches are to be cut off quite close to the stem, so that the bark may quickly cover the wound; and although trees may be pruned in summer, the fittest period for pruning, as of all operations upon the living plant, when vegetation is inert: that is, from the fall of the leaf, to the period of the ascent of the sap in spring.

Thus, then, the operation of pruning may be said to be begun in the nursery, but at that time with an extreme degree of temperance, all the object of pruning at that early period being to prevent the plant becoming forked. When the trees are transplanted to their ultimate situation, we may examine them in the third, or at latest, the fourth year afterwards, and then, if more than one leading shoot is formed on any tree, we are to select the best, and shorten the others to about half the length of that which had been selected. And in like manner, when any branch or set of branches is seen to be extending laterally, with a growth disproportioned to that of the others, then, by merely shortening them, the tendency to the lateral extension will be sufficiently checked to allow the other branches to extend in an equal degree. And should we find that all the branches of a tree are tending to extend too much laterally, by merely shortening them in a slight degree, we shall give the ascendancy to one leading shoot, and so promote the upward tendency; and this is all the pruning required until the tree has attained, as has been said, the height of fifteen or sixteen feet, when the process of pruning the lower branches is to be begun and carried on by the slow process described. But even after we have begun the process of close pruning, we may still observe that the tree is ascending vertically, and, if required, give this tendency from time to time by shortening of any of the lateral branches.

It is not essential to the success of this method of pruning, that it be carried on every year. It will be sufficient to approach as near to the perfect practice as circumstances will allow, observing merely the general rule that not more than the growth of one year shall be taken off at a time, and that the process shall not be carried further than to the clearing off three-fifths of the height of the tree.

The method of pruning by the shortening of the lateral branches, was brought into notice in England by the writings of Mr. Billington, who had charge of a portion of the royal forests: and it was further developed and explained, with the addition of the gradual denudation of the lower branches, by Mr. Cree, in Scotland. To these most deserving individuals is due the merit of having introduced, and to the latter that of having perfected, a system of pruning very greatly superior to that which had been before in use.

Pruning as it is commonly practised can scarcely be said to be

found on any principle. Branches are loped off without limit or caution, and thus the growth of the tree is injured, and wounds formed upon its surface, which are never afterwards cicatrized. Often in the case of the young trees, we see the entire branches of successive years' growth loped off in a season, and nothing left but a bush at the top. By this system of mutilation, millions of trees are sacrificed. A great proportion indeed of the whole cultivated wood of the country is annually destroyed, and it were better that the pruning knife were never used at all than thus misapplied. The practice so common has probably been derived from that of the garden; but it is to be observed, that, in the garden, the object of pruning is to repress the growth of the wood and produce that of fruit; and the principle therefore, is in no degree applicable to the pruning required in the forest.

The principal instruments to be employed in pruning are a sharp knife, chisels with handles for reaching the higher branches, and sometimes a small saw for the larger branches. The hatchet is on no occasion to be used in pruning. The Indian saw ought to be used, which is made to act by being pulled towards the operator, in place of being pushed away from him like the common saw of Europe. By being fixed to a long handle, this instrument is adapted to the cutting off the higher branches.

When the proper direction has been given to the growth of the tree, and the lower branches have been pruned to the height to which it has been thought expedient to carry the operation, art has done all that it can do to render the tree useful. The natural growth of the tree must effect the rest. The trunk will increase in diameter by the addition of concentric layers of wood, yearly formed between the bark and the stem. The longer a tree stands while in a growing state, the thicker will its trunk become, and the more valuable. It makes wood rapidly to use a familiar expression, when the trunk has become of a good size: and it is an error, therefore, to fell wood which is intended for timber too soon.

In the pruning of forest trees, one of the most frequent errors committed is to delay the process till too late. By this delay the form of the tree is rendered such that it cannot be restored; and the loping off of large branches in the manner often practised, in order to give the tree a better shape, is for the most part attended with the evil of disfiguring it more, and enfeebling its growth. We constantly see those mistaken attempts to repair

past neglect, by the lopping off of large limbs, the places of which the tree now wants vigour to heal. Vast number of trees are destroyed by this system of mutilation, when all further object in pruning is at an end. Sometimes a large branch may be lopped off a tree top heavy, or when a branch is likely to be split, or for some other good reason. But it is an error which must end in disappointment, to begin this system of lopping a full grown tree, with the design of compelling it to resume its process of increase when it has naturally ceased.

When a tree has naturally been neglected, but is not yet so far advanced, but that we may hope to restore it, we have merely to apply the principle of pruning explained to the case of the particular tree. We have to shorten the lateral branches which are forming forks, so as gradually to produce the upright tendency of the leading stem required. The rule is to proceed with the greatest temperance, taking care never to do too much in one season, lest, by depriving the tree of its branches, we enfeeble its vigour and impede its growth.

ARTICLE V.

ON THE CLIMATE OF HOT HOUSES.

BY PROFESSOR DANIELL, KING'S COLLEGE, LONDON.

THE principal considerations which generally guide the management of gardeners in this delicate department, are those of temperature; but there are others, regarding moisture, which are, I conceive, of at least equal importance. The inhabitants of the hot-house are all natives of the torrid zone, and the climate of that region is not only distinguished by an unvarying high degree of heat, but also by a very vaporous atmosphere. Captain Sabine, in his Meteorological Researches between the tropics, rarely found, at the hottest period of the day, so great a difference as ten degrees between the temperature of the air and the dew-point; making the degree of saturation about 730, but most frequently 5°. or 850; and the mean saturation of the air could not have been below 910. Now, I believe, that if the hygrometer were consulted, it would be no uncommon thing to find in hot-houses, as at present managed, a difference of 20° between the point of condensation and the air, or a degree of moisture falling

short off 500. The danger of over-watering most of the plants especially at particular periods of their growth, is in general very justly appreciated; and, in consequence, the earth at their roots is kept in a state comparatively dry, the only supply of moisture being commonly derived from the pots; the exhalations of the leaves is not enough to saturate the air, and the consequence is a prodigious power of evaporation. This is injurious to the plants in two ways; in the first place, if the pots be at all moist, and not protected by tan or other litter, it produces a considerable degree of cold upon their surface, and communicates a chill to the tender fibres with which they are lined. The danger of such a chill is carefully guarded against in the case of watering, for it is one of the commonest precautions not to use any water of a temperature at all inferior to that of the air of the house; inattention to this point is quickly followed by disastrous consequences. The danger is quite as great from a moist flower-pot placed in a very dry atmosphere.

The custom of lowering the temperature of fluids in hot climates, by placing them in coolers of wet porous earthenware, is well known; and the common garden pot is as good a cooler for this purpose as can be made. Under the common circumstances of the atmosphere of a hot-house, a depression of temperature amounting to 15 or 20 degrees, may easily be produced upon such an evaporating surface. But the greatest mischief will arise from the increased exhalations of the plants so circumstanced, and the consequent exhaustion of the powers of vegetation. The flowers of the torrid zone are, many of them, of a very succulent nature, largely supplied with cuticular pores, and their tender buds are unprovided with those integuments and other wonderful provisions by which nature guards her first embryo productions in more uncertain climates. Comparatively speaking, they shoot naked into the world, and are suited only to that enchanting mildness of the atmosphere for which the whole system of their organization is adapted. In the tropical climates the sap never ceases to flow, and sudden checks or accelerations of its progress are as injurious to its healthy functions, as they are necessary in the plants of more variable climates to the formation of those hybernacula which are provided for the preservation of the shoots in the winter season.

(To be continued.)

REVIEW.

The Suburban Gardener and Villa Companion;—By J. C. LONDON, F. L. S., H. S., &c.; London: Longman, & Co.

IN MONTHLY NUMBERS. The fifth number, for October 1837 48 pages, has been sent us, on looking it over, we find it contains many useful observations, and as the present number is doubtless a fair specimen of the entire work, we have no hesitation in recommending it to our readers. The following is an extract from the number now before us.

On Planting Flower beds with fibrous-rooted Perennials and Bulbs alternately.

"THE advantage of introducing bulbs in flower-gardens is, that their flowers make a greater show than those of fibrous rooted plants generally do in spring; and as, in small suburban residences, it seems more desirable that the gardens should look well in spring than in summer (because at the latter season many families go out of town for a few months), the use of bulbs appears very desirable. The manner of introducing them may either be in beds by themselves, to be succeeded by fibrous-rooted plants when they go out of flower; or intermixed with fibrous-rooted perennials, by using only half the number of the latter, and those of larger growth; and by placing the bulbs and the perennials alternately. As the bulbs come all into flower in March, April or May, they will have faded before the perennials have come to their full growth; and hence, notwithstanding the increased size of the perennials, the bed will not appear crowded. In the selection of both perennials and bulbs, we shall give, as far as practicable, only one species of a genus, in order to produce as much botanical variety as possible within the given space.

The perennials for the bed *a* may be the 8 following kinds; none of which come into flower earlier than June and which are all about 1 ft., or from that to 1 ft. 6 in., in height:—

Betonica grandiflora, large flowered betony; red, June.
Campanula arisifolia, the beam-tree-leaved bell flower; white, June.
Oenothera undulata, the waved-leaf evening primrose, yellow, July.
Delphinium elegans, perennial larkspur, blue, July.
Dianthus carthusianorum, Carthusian pink, red, August.
Scutellaria peregrina, white helmet-flowered, August.
Gentiana Saponaria, the soapwort-leaved Gentiana, blue, September and October.
Aster diffusus, white Michaelmas daisy September and October.

VOL. V.

The bulbs may be the 8 following:—

Scilla bifolia, blue two-leaved squill, March.
Crocus albiflorus, white-flowered crocus, March.
Anemone pavonia, the peacock's eye anemone, red, April.
Hyacinthus orientalis, white hyacinth, April.
Narcissus minor, small narcissus, yellow, April.
Fritillaria tenella, slender fritillary, purple, May.
Erythronium Dens canis, the dog tooth violet, reddish lilac, May.
Muscaria pallens, pale-blue musk hyacinth, May.

The bed *b* may be planted with the 8 following perennials:—

Ononis rotundifolia, the round-leaved reatharrow, red, June.

FF

Silene chloræfolia the Armerian catch-fly, white, July.
Commelina erecta, the upright commelina, blue, August.

The bulbs may be:—

Tulipa suaveolens, the sweet-scented wild tulip, variegated, March.
Galanthus nivalis, the common snow-drop, white, March.
Allium amœnum, the red flowered allium, April.
Narcissus tenuifolius, the slender-leaved narcissus, yellow, May.

The perennials for the bed c may be:—

Valeriana dioica, the dioecious valeriana, red, June.
Gypsophila arenaria, the sand gypsophila, white, July.
Tagetes lucida, French marigold, yellow, shining, perennial, August.

The bulbs may be:—

Corydalis albiflora, the white-flowered fumitory, March.
Iris tuberosa, the tuberous rooted iris, variegated, March.
Gagea bracteolaris, the yellow star of Bethlehem, April.
Lilium concolor, the self-coloured lily, red, May.

The perennials for the bed d may be:

Papaver orientale, the scarlet poppy, June.
Campanula persicifolia, the peach-leaved bell-flower, white, July.
Veronica candida, the white-leaved speedwell, blue, August.

The bulbs may be:—

Leucojum vernum, the snow-flake, white, March.
Eranthis hyemalis, the winter aconite, yellow, March.
Oxalis floribunda, the abundant flowering wood sorrel, red, April.
Scilla peruviana, the Peruvian squill, Purple, May.

The perennials for the bed e are:—

Lychnis sibirica, Siberian lychnis, white, June.
Potentilla Russelliana, Russell's potentilla, scarlet, July.

Baptisia tinctoria, the dyer's baptisia, yellow, August.

The bulbs are:—

Allium Chamæmoly, the dwarf moly, white, March.
Muscaria botryoides, the grape hyacinth, blue, April.
Tulipa præcox, early tulip, red, April.
Narcissus Bulbocodium, the hoop-petticoat narcissus, yellow, May.

The perennials for the bed f may be the 6 following:—

Clinopodium vulgare, common wild basil, red, June.
Lychnis neglecta, white lychnis, June.
Hypericum pulchrum, yellow St. John's wort, July.
Campanula carpatica, the Carpathina bell-flower, blue, July.
Phlox suaveolens, the sweet scented phlox, white, August.
Malva moschata, musk-scented mallow, red, August.

The bulbs may be the 5 following:—

Scilla italica, Italian squill, blue, March.
Fritillaria lutea, yellow fritillary, March.
Ornithogalum umbellatum, the umbel-flowered star of Bethlehem, white April.
Narcissus Jonquilla, common jonquil, May.
Lilium aurantium, the orange lily, May.

The perennials for the bed g may be the 5 following:—

Anthyllis coccinea, the scarlet kidney vetch, June.
Dianthus cæsius, the grey pink, white June.
Geranium ibericum, Spanish crane's bill, blue, July.
Oenothera serotina, late evening primrose, yellow, August.
Pentstemon diffusus, spreading pentstemon, purple, September and October.

The bulbs may be:—

Fritillaria præcox, early fritillary, white, March.
Allium incarnatum, flesh coloured moly, red, April.
Tulipa sylvestris, wood tulip, yellow, April.

Scilla campanulata, bell flowered squill, purple, May.
Narcissus poeticus, the poet's narcissus, white, May.

The perennials for the bed & may be:—

Dianthus deltoides, the deltoid pink, red, June.
Yerbena sulphurea, the yellow verbena, July.
Erigeron bellidifolius, the daisy-leaved erigeron, purple, July.
Aster conyzoides, the fleabane-like aster, white, August.

Scabiosa australis, the southern scabious, blue, September and October.

The bulbs may be as follows:—

Bulbocodium vernum, spring bulbocodium, purple, March.
Leucojum aestivum, summer snowflake, white, April.
Gladiolus communis, common cornflag, red, May.
Fritillaria imperialis, crown imperial yellow, May.

By this mode of planting we have 36 species of perennials, and 68 bulbs; and the advantage that it has over the preceding mode is, that a much greater show will be made in the months of March, April, and May; because, as already mentioned, the flowers of bulbous-rooted plants are much larger in proportion to the foliage than those of fibrous-rooted plants. The flowers are also much more conspicuous; because, in general, they expand before the leaves have attained their full size. On the whole, however, the culture of bulbs in mixture with perennials is inconvenient; except when florist's bulbs only are employed, that come into flower and fade all about the same time, and the roots of which may be taken up annually in June or July, and replanted in November or December. This admits of taking up the perennials every year, or every other year, stirring, refreshing or renewing the soil, and pruning or otherwise reducing the plants, and then replanting them. On the other hand, if what may be called botanical bulbs were introduced, as these are best allowed to remain in the soil for several years, the perennials cannot be so conveniently taken up, reduced, replanted, when they get too large. Another reason against intermixing permanent bulbs with perennials is, that, the moisture required during summer to keep the fibrous rooted plants in vigorous growth, has a tendency to rot the bulbs, they being at that time in a dormant state, and, in their native habitats, comparatively dry; almost all bulbs being natives of countries which have alternate seasons of drought and moisture, and flowering only in the latter. The best florist's bulbs to intermix with perennials are the different varieties of the common hyacinth, the crocus, the tulip, and the narcissus.

On Planting flower beds with showy Perennials, which are common and cheap.

The following list consists of showy species and varieties, quite hardy, that will grow with ordinary care, in any common soil, and may be procured in any good nursery, at prices varying from 3d. to 1s. each, when purchased by the single plant; or from 2s. 6d. to 10s. per dozen, as will be seen by the priced lists at the end of this work. Those who wish to know something more of any particular kind than what has been here stated, may refer to our descriptive catalogue, in which they will also find short directions for their culture; and to the priced lists for their prices.

February and March.

Viola tricolor, different varieties of heartsease.
Viola odorata, the sweet-scented violet.
Bellis perennis, the double red, dou-

ble white, variegated, and hen and chickens, daisies.
Gentiana acaulis, the dwarf gentian, purple.
Hepatica triloba, the double red, double white, and double blue, hepaticas.

(To be Continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. **CEREUS AKERMANNII.** *Akermann's Mexican Cereus.* [Bot. Mag. 3598.

CACTEE. ICOSANDRIA MONOGYNIA.

This splendid flowering plant has generally been considered an hybrid between *C. speciosa* and *speciosissimus*, but seeds of the original plant were first sent to this country from Mexico. The flowers are as large as *speciosissimus*, of a fine reddish-scarlet colour, but destitute of the fine azure colour which tinges the flower of that species.

3. **COWANIA PLICATA,** *Plaited-leaved.* [Brit. Flower Gard. 400f.

ROSACIA ICOSANDRIA POLYGYNIA.

An hardy evergreen, much branched shrub, a native of the uplands of Mexico. The blossoms are about an inch and a half across, of a rich rosy lilac colour. The flower in form very much resembles a single rose, of the size stated. They are produced numerously, and make a showy appearance. The plant is a valuable acquisition to our dwarf shrub; the plant was raised from seeds by Mr. Thomas Blair, Gardener to Mr. Clay, Stamford Hill. *Cowanisia*, in commemoration of the late Mr. James Cowan, who introduced into this Country a number of interesting plants from Mexico and Peru.

3. **CYPRIPEDIUM PURPURATUM.** *Purple stained Lady's slipper,* [Bot. Peg. 199].

ORCHIDACEE, GYNANDRIA DIANDRIA.

This new species has been recently introduced into this country by Mr. Knight, of King's Road, Chelsea, from the Malayan Archipelago. It has bloomed in the collection of Messrs. Loddiges's of Hackney Nursery. Its purple flower has a very pretty appearance. The foliage is very much like that of *C. venustum*.

4. **GESNERIA LATERITIA,** *Brick-coloured flowered.* [Botanist.

GESNERIACEE. DIDYNAMIA, ANGIOSPERMIA.

This species is a native of Brazil, received from that country to the London Horticultural Society's Garden, in 1832, and has bloomed in the plant stove at that place. The flower stem rises about two feet high, producing a number of brick-red flowers, each about an inch a half long. This species has, till very recently, been considered to be *Gesnera Sellowii*, but it is now ascertained not to belong to the section of *Gesnera*, to which *G. Sellowii* belongs, but to that of *G. bulbosa*. *Gesneria*, so named in compliment to Conrad Gesner of Zurich, who died in 1565.

5. **GESNERIA LINDLEYI,** *Dr. Lindley's Gesneria.* [Bot. Mag. 360f.

SYNONYM, *G. RUTILA*, VAR *ATROSANGUINEA*.

This handsome flowering species is a native of Brazil. It differs from *G. rutila* in many particulars. That species has oxillary, solitary, flowers, and has a wider mouth. The hypogynous glands are only two, whereas in *G. Lindleyi* they are constantly five. The flowers of this latter species are of a bright scarlet colour, each about an inch and a quarter long; they are produced numerous on a raceme of near two feet long. The flower stem rises from three to four feet high.

6. GRABOWSKIA BOEHAAVIÆFOLIA, *Boerhaavia-leaved*. [Bot. Reg. 1985]

SOLANACEÆ. PENTANDRIA MONOGYNIA. SYNONYMS. LYCIUM, BOERHAAVIFOLIA. LYCIUM HETERPHYLLUM. EHRETIA HALIMIFOLIA.

A spinous shrubby plant, introduced to the London Horticultural Society's Garden, from Brazil, where it is a common shrub in the woods and fields, and grows to the height of eight or ten feet. It has been found hardy enough to bear the open air of this country, when trained against a south aspect wall. It is a very branching shrub, with leaves much resembling those of *Paidium Catleyanum*. Each flower is about half an inch across, of a pale-violet blue. They are produced in small branching panicles. *Grabowskia* in compliment to Mr. N. Grabowsky, an Apothecary at Ohlaf, an author of a work on flowers,

7. LOBELIA CAVANILLESII, *Cavanilles's Lobelia*. [Bot. Mag. 3600.]

CAMPANULACEÆ. PENTANDRIA MONOGYNIA. SYNONYM, LOBELIA PERSICIFOLIA.

A native of New Spain, and requires to be grown in the stove in this country. It blooms in August and September. It is an herbaceous plant, having a flower stem about a yard high, with scarcely any branches. The flowers are produced numerously, upon long foot-stalks. Each flower is about an inch and a half long of an orange-red colour. The stamens are united their whole length, and forms a long red tube, which adds to the beauty of the flower. The plant has bloomed in the Glasgow Botanic Garden. *Lobelia* in compliment to Mr. Lobel,

8. LOBELIA SIPHILITICA, var MILLERII, *Miller's Blue American Lobelia*. [Bot. Mag. 3604.]

LOBELIACEÆ, PENTANDRIA MONOGYNIA.

This beautiful flowering hybrid has been raised from seed, between *L. siphilitica*; and *L. fulgens*; or *L. splendens*, or some fine scarlet flower. The colour of the flower is the blue of the former, with the fine scarlet or crimson of one of the others. It is quite hardy, and produces numerous flower stems rising to the height of two feet, which continue in bloom from July to the end of summer. The plant deserves a place in every flower garden. We have twelve other fine varieties.

9. MAXILLARIA STEELI, *Mr. Steel's*. [Bot. Reg. 1986.]

ORCHIDACEÆ. GYNANDRIA MONANDRIA. SYNONYM. MAXILIARIA FLAGELLIFERA.

It is a native of Demerara, from whence it was introduced in 1835. The plant is of very singular growth; the stems are pendulous, and the leaves are very long, extending three or four feet. They are like so many very strong rushes. The flowers are produced solitary, each rather more than two inches and a half across. They are yellow, irregularly spotted and striped with large spots, and stripes of dark purple. The labellum is of a sulphur colour with dark purple veins, altogether singularly handsome. The plant has bloomed in the collection of Messrs Loddiges's of Hackney.

In the Botanical Register, Dr. Lindley has noticed the following new species of *Maxillaria*, viz. 1, *Maxillaria Rolissoni*, in Messrs Rolisson's collection, at Tooting Nursery. The flowers are of a pale Lemon colour, with the Labellum dotted in the middle with fine purple.

2. *M. acicularis*; a native of Brazil, in the collection of the Honourable and Reverend W. Herbert. The flowers are of a purplish chocolate colour.

3. *M. uncata*; a native of Demerara, in Messrs. Loddiges's collection.

4. *M. chlorantha*; a native of Demerara; in Messrs. Loddiges's collection. The flowers are of a yellowish green, small they are sweet scented.

5. *M. variabilis*; a native of Mexico. The flowers are small of a deep purple colour. This species has been known by the following names *M. atropurpurea*, *M. concinna*.

6. *M. tenuifolia*; a native of Mexico. The flowers are of a rich purple, spotted, and broken into small yellow patches.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES

ON STENACTIS SPECIOSA.—I have raised from seed a number of plants of the *Stenactis Speciosa*. I can find no such name in Sweet's catalogue, or any other book of reference in my profession, will you have the kindness to inform me in your November number, whether they are worth keeping, and if they are hardy, or will live through the winter in the open ground. I cannot recollect from whence I had the seeds unless it was Chiswick Gardens.

Sep. 6th, 1887.

S. W.

[The plant is quite hardy, herbaceous perennial. When raised from seed the first season it usually produces a large proportion of foliage, but in successive seasons, less foliage and more bloom, and the large bluish purple aster like flowers are very showy.—CONDUCTOR.]

ON PRESERVING GERANIUMS THROUGH WINTER.—Can you advise me of any plan to save through the winter, geraniums turned out of pots into borders early in September, and are grown so large as to become doubtful if they can again be got into pots with a hope of preserving their lives?—can you or any of your readers inform me if the plant of the Rev. Mr. Williamson, by cutting off the leaves, and fibres, and preserving them in sand in a cellar or dry place has been found to answer? any information you can afford me (early) on this subject, will greatly oblige your sincere well wisher.

PEDRO.

If the plants be taken up with as many of the fibrous roots as can be got, and they are placed in pots, boxes, or baskets, with good soil, well watered at the time of planting, and then put where they can be protected during winter, in a greenhouse, frame, or room, they will survive well. Care must be taken after the first watering, not to repeat it frequently at the roots, till the shoots begin to push, or the tender fibres would most likely perish. If the heads be too large, they may be cut in at the time of replanting in the boxes, &c., only allow a shoot, or shoots to remain upon the plants which has foliage, this materially contributes to their rooting. A sprinkling of water occasionally over the foliage after planting in the boxes, &c., will be beneficial. We have kept a hundred plants in a small box, in this way, and not one died. Early in April we usually took off a lot of new shoots and struck them for turning out in May, the larger old plants, for the middle of a bed, and the younger (new struck ones) for the sides. These made uniformity of appearance in the bed, being highest at the centre, and gradually declining to the side. We have not tried the plan of the Reverend Mr. Williamson.—CONDUCTOR.

ANSWERS.

ON DELPHINIUM CHINENSIS ALBA.—John Young begs to say to the Enquirer for *Delphinium chinensis alba*, that he will be happy to supply it at list prices sent to the Editor, (1s. 6d. each) and if the order amounts to twenty shillings, he will pay carriage to London Nursery, Taunton, Somersetshire.

REMARKS.

NEW PLANTS, &c.—*Lilium atrovirens*. This fine flowering species has been most abundantly and splendidly in bloom, in the Nursery-grounds of Mr. Groom, Walworth, London. The flower scape rises about a foot high. The plant is perfectly hardy, and on this, as well as its splendour, deserves a place in every flower garden.

Duranta Eleisi. This has recently been introduced, and the character sent with it, was, "it is a most superb flowering plant." We saw fine plants of it growing in the open ground in the beautiful Nursery of Mr. Young of Epsom. If the present new species has the habit of its flowers, and bear a resemblance to the *Duranta Plumieri*, it certainly deserves a place in every collection. It is most likely to require the protection of a greenhouse during winter, and probably to bloom it well in its proper season.

Gesneria Sellowii. This very fine species we saw in the exhibition at the Egyptian Hall, London, and in some of the London nurseries. It is the finest flowering species we have seen. The flowering stems rises about four feet high, producing an immense number of flowers, each about three inches long, of a most brilliant scarlet colour. It deserves a place in every stove.

Fuchsia Fulgens. This new and most striking species has been introduced from Mexico, by Mr. Lee of Hammersmith Nursery. The leaves are about five inches long and four broad of a bright green, tinged near the middle, and at the underside with purple. The flowers are very different in appearance from any other species, approaching the nearest to *Fexorticata* in form, but are much larger. Each flower is about three inches and a half long. The calyx (outer portion of the flower) is a light scarlet-red, having the curved segments green. The corolla (inner portion of the flower) of a deep scarlet-red. The flowers are produced at the extremities of the shoots, hanging most gracefully pendant, in clusters of from ten to thirty, or even more. The plant deserves a place in every greenhouse, and, as we suppose, it will do as well in the open border as any other kind, it deserves a place in every border or flower garden. It is a most desirable plant, having noble foliage, and most beautiful bloom.

Cereia Milnerii. The flowers are larger than *C. speciosa*, of a fine rose colour. The plant well merits a place in every greenhouse. We saw fine plants of it at Mr. Grooms, Walworth.

Chorizema. A new species introduced to Mr. Lowes of the Clapton Nursery. The species appears most extraordinary. The leaves are as large as *Hovea Cellarii*, and we are informed the flowers are of a size proportioned to the foliage, and produced in very long spikes. This, in addition to its fine foliage, renders it a most valuable acquisition, and worthy a place in every greenhouse. It will certainly very far exceed any other of its species yet introduced into this country. It was sent from the Swan River.

Naeturium tuberosum. This very fine species we have seen in most profuse bloom, at Mr. Young's Nursery. The flowers are, calyx, of a fine deep orange red: corolla of a light fine yellow, striped in the inside with dark crimson. Each flower is an inch and a half long, and an inch across the mouth of its corolla. It is a very valuable acquisition, growing and blooming profusely in the open ground in summer. The large roots, six inches across, are said to be very agreeable when eaten.

Verbena Drummondii *hiacintia*. We have seen plants of this fine large lilac variety, that had been pegged down for a bed, one mass of bloom, and growing in contrast with a bed of each of the following, viz. *Tweediania*, *V. melindris*, and *Valbiflora*. The effect was very striking. The *V. Tweediania* was pegged down as the *Drummondii*, and both kinds had taken root, similar to the *V. melindres*.

Nuttallia grandiflora. This is the finest of this showy genus. The flowers are of a deep rosy purple, very large, and renders it very valuable for the flower garden. It continues to bloom till the end of the season.

REFERENCE TO PLATE.

LOBELIA AZUREA. A newly introduced species by Mr. Groom of Waiworth It is a hardy annual of great beauty, well deserving a place in every flower border, or as an ornament in summer, in the greenhouse. It grows about two feet high, branching profusely.

CUPEA SILENOIDES. A very pretty flowering hardy annual, in the collection of Mr. Groom. It grows about a foot high, and is very neat and beautiful.

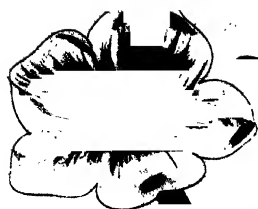
PENTSTEMON GENTIANOIDES. This very fine species grows four or five feet high, producing a very extended spike of numerous flowers, rendering it one of the most splendid plants that can be introduced into the flower garden, (it ought to be in every one.) We saw fine specimens at Mr. Groom's, and at Mr. Young's. We repeat, no flower garden should be without it.

NUTTALLIA GRANDIFLORA. A hardy, border plant which we saw in most profuse bloom at Mr. Grooms, in pots. The flower stems rise from two to four feet high. It is a most desirable plant, its blossoms being produced profusely, and are very neat and showy. No flower garden should be without it. It is very ornamental too in the greenhouse, as a summer and autumn ornament.

FLORICULTURAL CALENDAR FOR NOVEMBER.

GREENHOUSE PLANTS.—If any are not yet housed, they should now be without delay. All possible air should be admitted to the greenhouse, excepting when frosty. The plants should not be watered in the "broad cast" manner, as it is termed; but should be attended to singly, so that no plant may be watered but what is actually dry. Water should not be given in the evening, but in the early part of the day, so that damps may be dried up before the house is closed. If watered in the evening, the damp arising during the night will cause the leaves to decay, and encourage moss, lichens, &c. upon the soil. This will invariably be the consequence, unless fire heat be applied to counteract the effect. The soil in the pots should frequently be loosened at the surface, to prevent its forming a mossy or very compact state.

FLOWER GARDEN.—All decayed stalks should be cleared away. Seeds of all kinds of flowering plants should be collected, if neglected hitherto. The borders should be dug over, and additional fresh soil be added where required. All kinds of perennial border flowers should be planted. If any plant has become too large, it should now be reduced in size, and vacancies filled up. Bulbous roots, Ranunculuses, Anemones, &c., should be planted without delay. For Auriculas, Carnations, &c., see last month's Calendar, where suitable directions are given. Evergreen and deciduous shrubs may be planted this month. Protect beds of bulbous flowering plants in unfavourable weather. Newly planted shrubs, in exposed situations, should be secured to stakes. All kinds of border flowers kept in pots for winter protection, &c., should be removed to winter quarters, either in pots, frames, or some warm dry situation. Composts for floricultural purposes should be turned, &c. Calceolarias that have been in borders should be taken up, and kept in pots, in a cool, dry situation, either in the greenhouse, frame, or pit. Let the plants of Chrysanthemums in-doors have abundance of air. In taking up dahlia roots, be careful not to twist or injure the tubers near to the crown: this attention is particularly necessary with small roots; never cut down the stems till the roots are to be taken up, for the stem being hollow holds rain, and half the lost Dahlias may be traced to this. Care should be taken to have the names or numbers well secured to the root by means of copper-wire fastenings: it often happens that the stalk perishes before spring, and names attached thereto are liable to be removed, and to cause confusion. Tubers of Commelina, and bulbs of Tigridias, should be taken up and preserved dry through winter.



6

5



1



Varieties of Petunias

J & J. Parkin Sc



Helioscopia speciosa.



Pentstemon gentianoides.



*Nattallia grandiflora
ssp. ciliata.*



Cypripedium pubescens.

•

THE
FLORICULTURAL CABINET,

DECEMBER 1st, 1837.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE BEST SEASON FOR PLANTING EVERGREEN SHRUBS, &c.

BY A CONSTANT READER.

THERE is an article in the last Number of the Cabinet, by a London Nurseryman upon planting Evergreens, which, after having read attentively, I am inclined to believe may be the cause of misleading some of your readers.

I am neither a nurseryman or gardener, but having, during my leisure hours, had some experience in horticulture, it may not be presumption in me, to give my reasons for dissenting from the observations contained in your Correspondent's communication. He recommends removing Evergreens in April or May, giving as a reason that the young wood cannot be ripened sufficiently in autumn without suffering (I suppose from frost) Now here we are at issue, I admit that a few of the extremities of our shrubs, many perish, but that evil I have always prevented by heading down, say from twelve to eighteen inches, according to the size of the shrub. Nothing would induce me to plant in May unless my ground was of a wet clayey consistence, if so, no matter when. Evergreens grow nearly all the year; plant them in September or October, take one up at Christmas, and you will find an immense number of new fibres pushed from the old roots;

- Spatulata*, single blood red, white spot or stripe.
Pressii, single red large flower.
Miltonia, double red with white stripe.
Timbreata, double white fringed, beautiful.
Woodsii, double dark rose, good.
Actonia, single light red, large flower.
Punctata, very double white, blush spot or stripe, large flower.
Simboldii, single rose, large and fine.
Bedfordii, double dark red, very good.
Welbankii, double pale white, large flower.
Dorsettii double dark red, white spot or stripe, fine.
Elphinstonii, very double dark red, fine.
Candidissima, double white, fine form, good.
Triumphans, double rose, good.
Anemoneflora rubra, double dark red, good.
Rosa Mundii, double white with red spot or stripe.
Cliveana, double dark red, very good.
Lankwanii, single rose, large flower.
Conspicua, double light rose, good.
Campbellii, double white, with pink spot or stripe, fine.
Flavescens, double buff, beautiful shape.
Elegantissima, semi double, dark rose, good.
Carswelleana, double red, white stripe, fine form.
Hetropetta alba, double white very good.
Hetropetta rubra, double dark red, very fine.
Juliana, double white with pink stripe, very beautiful.
Herbertia, single red, large flower.
Semiduplex alba, senu, double white.
 (To be continued.)

ARTICLE IV.

CONVERSATION BETWEEN BLOOMWELL AND WOULDKNOW.

(Continued from page 222.)

WOULDKNOW. Do you think so.

BLOOMWELL. Yes, in the course of my experience, I have frequently had bizarres of this class lose the pink stripe, and become purple or crimson flakes, but never met with an instance either in my own garden, or elsewhere, of a bizarre which had softened down to a rose flake; Huggin's Brilliant, indeed is

sometimes little more, but there is always enough of the dark colour to denote the class it belongs to.

WOULDKNOW. I should think, if it were really a sport, it would sometimes return to its original state, under so many different methods of culture.

BLOOMWELL. That might or might not happen, run flowers rarely return to their original state, though there are some instances in which they do, so Cartwright's Rainbow, C. B. is said frequently to return, and I have had Waterhouse's Summit of Perfection, return to the bizarred state, after being a flake three or four years, but I never heard of Fletcher's Duchess changing to a bizarre. The person who first sent it out, if living, could certainly set the question at rest, unless it was a sport or raised from seed.

WOULDKNOW. Is not this generally said to be the best rose flake grown?

BLOOMWELL. That is perhaps but matter of fancy, it has deservedly many admirers on account of its high colour, and when in a fine state is almost invincible, for my own part, I have seen no rose flake yet that I can prefer to Tyso's Victoria, when you can get it clean (which by the bye is not so often as might be wished) the beautiful flaking of this flower, its fine form, good size, and free growth, render it a valuable acquisition to any collection, it is a pity the white should be so seldom free from speckles. But come Sir, the day is very warm, let us sit down in the arbor and chat awhile and moisten our throats with a glass of ale.

WOULDKNOW. With all my heart. (*they sit down*). You mentioned of raising a seedling like Wild's Perfection; Have you been the raiser of many good seedlings, Mr. Bloomwell?

BLOOMWELL. Why, yes, I have no reason to complain, I have succeeded in raising above a score of as good flowers as most.

WOULDKNOW. You must have been very fortunate then, as Mr. Hogg declares the man that raises six in his life-time, has had his endeavours crowned with success.

BLOOMWELL. I suppose Mr. Hogg means six such, as would set all competition at defiance, for there are many persons, and (Mr. Hogg no doubt, among the number) who have raised four or five times half a dozen flowers of as good properties as at least half those enumerated by Mr. Hogg in his book, but this may be partly owing to the improved state of the collection, now

kept for several years. On my first attempt to raise seedlings I got none worth keeping, but as my stock of flowers increased, both in quantity and quality, I found my seedlings began to be better, and I at length saved seed from first-rate flowers only, sometimes resorting to artificial means of impregnation, and sometimes trusting entirely to nature, the former is decidedly the surest means of procuring seed, but is by no means the surest way of raising fine flowers, the seed raised naturally producing, as often as the other superior flowers.

WOULDKNOW. The odds then against raising good seedlings are not quite so great as I thought them ?

BLOOMWELL. Perseverance will do much ; some people having had no success for a year or two give up the raising seedlings as a useless pursuit ; but I would impress upon the mind of the young Florist, that if he wishes to succeed I have no doubt but there are many novelties yet to be raised, and new ones to be added to our present stock. In 1835 I raised a scarlet and pink bizarre, which is a variety I had not seen before ; I have seen several Piccotees slightly bizarred, as pink and crimson, lilac and deep purple. I had one seedling this season beautifully laced with pink and purple, but unfortunately it was single. A friend of mine has a heavy edged red Piccotee, curiously shaded with black : these variegations, I have no doubt, will be in time more fully developed, as many others which have never met my notice. There is such a pleasure in raising seedlings, so much to anticipate, so much to exult in, when you see one of your own productions at the head of its class, triumphing, perhaps, over some of the most renowned veterans of the day ; that I would never be without a bed of seedlings if I could help it.

(To be continued.)

What in the name of Mr. Thomas Hogg, can an ‘ Old Florist,’ (page 229) mean by advising us to fertilize some double flowers with the pollen of our best double ones which in many cases is not to be found ; the reverse of the method is much more rational and likely to succeed. Semi-double generally having the male organs in abundance ; these should be handsome coloured flowers, the hybrids generally partaking most of the colour of the male parent, and the form and habit of the female.

BIZARRE.

ARTICLE V.

ON THE CLIMATE OF HOTHOUSES.

(Continued from page 256.)

SOME idea may be formed of the prodigiously increased drain upon the functions of a plant, arising from an increase of dryness in the air, from the following consideration. If we suppose the amount of its perspiration, in a given time, to be 57 grains, the temperature of the air being 75° , and the dew-point 70, or the saturation of the air being 819, the amount would be increased to 120 grains in the same time, if the dew-point were to remain stationary, and the temperature were to rise to 80° ; or, in other words, if the saturation of the air were to fall to 726.

Besides this power of transpiration, the leaves of vegetables exercise also an absorbent function, which must be no less disarranged by any deficiency of moisture. Some plants derive the greatest portion of their nutriment from the vaporous atmosphere, and all are more or less dependant upon the same source. The *Nepenthes Distillatoria* lays up a store of water in the cup formed at the end of its leaves, which is probably secreted from the air, and applied to the exigencies of the plant when exposed to drought; and the quantity which is known to vary in the hothouse, is no doubt connected with the state of moisture of the atmosphere.

These considerations must be sufficient, I imagine, to place in a strong light the necessity of a strict attention to the atmosphere of vapour in our artificial climates, and to enforce as absolute an imitation as possible of the example of nature. The means of effecting this is the next object of our inquiry.

Tropical plants require to be watered at the root with great caution, and it is impossible that a sufficient supply of moisture can be kept up from this source alone. There can, however, be no difficulty in keeping the floor of the house and flues constantly wet, and an atmosphere of great elasticity may thus be maintained in a way perfectly analogous to natural process. Where steam is employed as the means of communicating heat, an occasional injection of it into the air may also be had recourse to; but this method would require much attention on the part of the

superintendent, whereas the first cannot easily be carried to excess.

It is true that damp air, or floating moisture of long continuance, would also be detrimental to the health of the plants, for it is absolutely necessary that the process of transpiration should proceed; but there is no danger that the high temperature of the hot-house should ever attain the point of saturation by spontaneous evaporation. The temperature of the external air will always keep down the force of the vapour; for as in the natural atmosphere the dew-point at the surface of the earth is regulated by the cold of the upper regions, so in a house the point of deposition is governed by the temperature of the glass with which it is in contact. In a well ventilated hot-house, by watering the floor in summer, we may bring the dew-point within four or five degrees of the temperature of the air, and the glass will be perfectly free from moisture; by closing the ventilators, we shall probably raise the heat 10 or 15 degrees, but the degree of saturation will remain nearly the same, and a copious dew will quickly form upon the glass, and will shortly run down in streams. A process of distillation is thus established, which prevents the vapour from attaining the full elasticity of the temperature.

The action is beneficial within certain limits, and at particular seasons of the year; but when the external air is very cold, or radiation proceeds very rapidly, it may become excessive and prejudicial. It is a well known fact, but one which, I believe, has never yet been properly explained, that by attempting to keep up in a hot-house the same degree of heat at night as during the day, the plants become scorched. From what has been premised, it will be evident that this is owing to the low temperature of the glass, and the consequent low dew-point in the house, which occasions a degree of dryness which quickly exhausts the juices.

Much of this evil might be prevented by such simple and cheap means as an external covering of mats or canvass.

The heat of the glass of a hot-house at night, does not probably exceed the mean of the external and internal air; and taking these at 80° and 40°, 20° of dryness are kept up in the interior, or a degree of saturation not exceeding 528°. To this in a clear night, we may add at least 6° for the effects of radiation, to which the glass is particularly exposed, which would reduce the saturation to 434°, and this is a degree of drought which

must be nearly destructive. It will be allowed that the case which I have selected is by no means extreme, and it is one which is liable to occur even in the summer months. Now, by an external covering of mats, &c., the effects of radiation would be at once annihilated, and a thin stratum of air would be kept in contact with the glass, which would become warmed, and consequently tend to prevent the dissipation of the heat. But no means would of course be so effective as double glass, including a stratum of air; indeed, such a precaution in winter seems almost essential to any great degree of perfection in this branch of horticulture. When it is considered that a temperature at night of 20° is no very unfrequent occurrence in this country, the saturation of the air may, upon such occasions, fall to 120° , and such an evil can only at present be guarded against by diminishing the interior heat in proportion.

By materially lowering the temperature, we communicate a check which is totally inconsistent with the welfare of tropical vegetation. The chill which is instantaneously communicated to the glass by a fall of rain or snow, and the consequent evaporation from its surface, must also precipitate the internal vapour, and dry the included air to a very considerable amount, and the effect should be closely watched. I do not conceive that the diminution of light which would be occasioned by the double panes, would be sufficient to occasion any serious objection to the plan. The difference would not probably amount to as much as that between hot-houses with wooden rafters and lights, and those constructed with curvilinear iron bars, two of which have been erected in the garden of the Horticultural Society. It might also possibly occasion a greater expansion of the foliage; for it is known, that in houses with a northern aspect, the leaves grow to a larger size than in houses which front the south. Nature thus makes an effort to counteract the deficiency of light, by increasing the surface upon which it is destined to act.

The present method of ventilating hot-houses is also objectionable, upon the same principles which I have been endeavouring to explain. A communication is at once opened with the external air, while the hot and vaporous atmosphere is allowed to escape at the roof; the consequence is, that the dry external air rushes in with considerable velocity, and becoming heated in its course, rapidly abstracts the moisture from the pots and foliage. This is the more dangerous inasmuch as it acts with a rapidity

proportioned in a very high degree to its motion. I would suggest, as a matter of easy experiment, whether great benefit might not arise from warming the air to a certain extent, and making it traverse a wet surface before it is allowed to enter the house.

There is one practice universally adopted by gardeners, which is confirmatory of these theoretical speculations; namely, that of planting tender cuttings of plants in a hot bed, and covering them with a double glass. Experience has shown them that many kinds will not succeed under any other treatment. The end of this, is obviously to preserve a saturated atmosphere; and it affords a parallel case to that of Dr. Wells, of the anticipation of theory by practice.

The effect of keeping the floor of the hot-house continually wet, has been already tried at the Society's garden, at my suggestion, and it has been found that the plants have grown with unprecedented vigour; indeed their luxuriance must strike the most superficial observer.

To the human feelings, the impression of an atmosphere so saturated with moisture is very different from one heated to the same degree without this precaution; and any one coming out of a house heated in the common way, into one well charged with vapour, cannot fail to be struck with the difference. Those who are used to hot climates, have declared that the feel and smell of the latter exactly assimilate to those of the tropical regions.

But there is a danger attending the very success of this experiment, which cannot be too carefully guarded against. The trial has been made in the summer months, when the temperature of the external air has not been low, nor the change from day to night very great. In proportion to the luxuriance of the vegetation, will be the danger of any sudden check; and it is much to be feared, that unless proper precautions are adopted, the cold long nights of winter may produce irreparable mischief.

I am aware that a great objection attaches to my plan of the double glass, on account of the expense; but I think that this may appear greater at first sight than it may afterwards be found to be in practice. It is, however, at all events, I submit, a point worthy of the Horticultural Society to determine; and if the suggestion should be found to be effective, the lights of many frames which are not commonly in use in winter, might, without much trouble, be fitted to slide over the hot-houses during the severe season; and in the spring, when they are wanted for other pur-

poses, their places might be supplied at night by mats or canvas.

The principles which I have been endeavouring to illustrate should be, doubtless extended to the pinery and the melon frame, in the latter of which a saturated atmosphere might be maintained by shallow pans of water. An increase in the size of the fruit might be anticipated from this treatment, without that loss of flavour which would attend the communication of water to the roots of the plants.

I have but few additional observations to offer upon the artificial climate of a green-house. The remarks which have been made upon the atmosphere of the hot-house are applicable to it, though not to the same extent. The plants which are subject to this culture seldom require an artificial temperature greater than 45° or 50°, and few of them would receive injury from a temperature so low as 35°. When in the house, they are effectually sheltered from the effects of direct radiation, which cannot take place through glass; but the glass itself radiates very freely, and thus communicates a chill to the air, which might effectually be prevented by rolling mats. With this precaution, fire would be but rarely wanted in a good situation to communicate warmth; but in this damp climate it may be required to dissipate moisture. The state of the air should be as carefully watched with this view, as where a high temperature is necessary to guard against the contrary extreme. Free transpiration, as I have before remarked, is necessary to the healthy progress of vegetation; and when any mouldiness or damp appears upon the plants, the temperature of the air should be moderately raised, and free ventilation allowed. When the pots, in the proper season, are moved into the open air, it would contribute greatly to their health, and preserve them from the effects of too great evaporation, to imbed them well in moss or litter: as a substitute for this precaution, the plants are generally exposed to a northern or eastern aspect, where the influence of the sun but rarely reaches them, but which would be very beneficial if their roots were properly protected. The advantage of such a protection may be seen when the pots are plunged into the soil, a method which communicates the greatest luxuriance to the plants, but unfits them to resume their winter stations.

When a green-house is made use of, as it often is after the removal of the pots, to force the vine, the same precautions should be attended to as in the management of the hot-house, and the

elasticity of the vapour should be maintained by wetting the floor but after a certain period, a great degree of dryness should be allowed to prevail, to enable the tree to ripen its wood, and form the winter productions for its buds. In this its treatment differs from that of the tropical plants, which require no such change, and to which, on the contrary, it would be highly detrimental. The same observation applies to forcing-houses for peaches, and other similar kind of trees. As soon as the fruit is all matured, they should be freely exposed to the changes of the weather.

HORT. TRANSACTIONS.

ARTICLE VI.

ON ORNAMENTAL PLANTING.

BY J. STUART MENTEITH, ESQ. OF CLOSEBURN.

HAVING perused the following article with great satisfaction, we have been induced to insert it in the Cabinet from the belief that it will be both interesting and beneficial to our readers:—

A taste for improvement of this kind has, no doubt, already commenced amongst us; but it might be greatly promoted by calling the attention of the public more frequently to the beauties and advantages of this species of ornament.

The few following hints are offered for the purpose of awakening a taste for this elegant pursuit.

Though there are not many ornamental plants natives of Scotland, yet nature has furnished not a few which may be readily naturalized to our climate.

Of these there are various kinds and varieties; and to select from among them what will best answer particular soils and situations, must be left to the skill of individuals. Those which we are about to enumerate, with few or no exceptions, thrive in most ordinary situations, or in any soil.

The following, denominated the tree-evergreens, deserve the first attention, viz., the Scotch, the silver, and the spruce firs. The last is by far the handsomest of the fir tribe, having its branches long and tapering, beautifully curved or bended upwards, and with its tall elegant stem rising like a lofty pyramid, towers over all the trees of the grove.

The cedars require a more sheltered situation, and with that indulgence, there are few places in Scotland in which they would not grow.

A great number of the evergreen shrubs may be easily and quickly raised in Scotland. The spurge laurel, the common or bay laurel, the Portugal laurel, and sweet scented bay laurel, from which the poet gathers his wreath, will thrive in most situations. The last is more delicate ; but with a little care in severe winters, it may be reared. The laurustinus grows almost any where, and has the peculiar quality that it will, if the winter be mild, be in bloom at that season. A variety with shining leaves, lately introduced, will be found preferable. The strawberry tree, or *arbutus fluens* ; the holly, and the evergreen thorn, or *mespilus pyracantha*, with their deep blood-red berries, are strikingly beautiful. Of the yew, the holly, and the evergreen-privet, hedges can be formed, and they are most pleasing of all objects to shelter our winter walks. The *pyracantha*, the ivy, particularly the large-leaved Irish variety, the *Pyrus japonica*, and the *Rosa indica*, which bloom in winter and early spring, are well fitted for ornamenting walks.

Of the American evergreens, several may be domesticated with us, such as various species of *rhododendron*, and of *kalmia*, all of which give an interest and beauty to our shrubbery. Many of the smaller but not less beautiful evergreen plants, are to be found ; as all the varieties of the periwinkle, with its pretty blue flower ; the *daphne*, and the heaths. Of the last of these are about twenty hardy varieties, fit to stand our climate, flowering at different times of the year, and bearing a certain degree of clipping with the shears. These are admirably adapted to form the fringe or edging of the flower-garden ; much superior, from their delicately formed flowers, to the box, as the present to the eye a continued succession of varied colours.

All the above mentioned evergreens are easily propagated. Some of them, requiring a little nicety in managing the young plants when raised from seeds, are more readily grown by slips, or laying in the branches. With all these methods of raising them every gardener is acquainted.

Having described the means of ornamenting our residences during winter, we have now to mention those plants by which they may be embellished in the other seasons of the year ; and for that purpose it is recommended to plant more of the flower-

ing trees and shrubs in our woods and shrubberies: such as the horse-chesnut, the lime, the mountain ash, the elder, which is readily propagated from cuttings, and growing well on elevated situations, is fitted to make excellent hedges in upland countries,—sheep and cattle will not browse it; the geen or wild cherry, the Siberian crab, the laburnum, the acacia (*Robinia pseud-acacia*), the lilac, particularly the liberian or varin, the azalia of different species, the variegated thorn, *Aucuba japonica*, *Pittosporum tabiri*, and such like. These being planted in fit places, would, by their fragrance and flowers, add much to the comfort and beauty of our dwellings.

The advantages of planting such evergreens and ornamental trees and shrubs around our houses, are obvious: they will afterwards afford shelter and warmth; and if walks or avenues of them were formed, they would present us, in the dreary, naked, cold season of winter, when the other trees are stripped of their foliage, always something on which the eye might rest, and on which it might be refreshed. Besides, most of the evergreens, from their varnish-coated leaf, have the peculiar property of suffering little injury from the drop of the taller forest trees, and consequently they will grow under the shade. Nay, some of them, as the rhododendron, will be found more at home under such shade, than when exposed to the glaring sun. In North America, this forms much of the underwood of the immense forests that cover that vast continent. Intermingled with other planting, these evergreens will afford the sportsman the best of all covers for game; and the lover of the music of nature's sweet concert, will find them always the favourite resort of the most interesting part of feathered creation—the birds of song.

There is no doubt that such improvements are best fitted, or most suitable, to the taste and circumstances of the higher ranks, and must of course begin with them. It is, however, very desirable that the cultivation of the ornamental plants should not be exclusively confined to the palace, but that it should also be extended to the cottage. This might be accomplished at little or no expense, as most of the cottages in Scotland are wisely allowed by the proprietors or land-holders to have a garden. A spot is accordingly ready prepared to receive such plants; and if a little encouragement were given to the landlord, some plants gratuitously distributed, and a few kind words spoken, we should, in a short time, see the cottages and their gardens, which now too

often present any thing rather than order or neatness, assuming a gay appearance; and their walls, which now are generally naked and cheerless, would be covered with some or other of the evergreens, mixed with the jessamine and the rose, the Virginia creeper, and the prettiest of all Scotland's wild plants—the woodland.

From such improvements in their gardens, it may reasonably be expected that the inmates of the cottages would gain not a little in point of taste and good feeling; order and cleanliness would supplant disorder and filthiness; and, above all, if the cottage child, during his hours of leisure and relaxation, were trained to look after, and take an interest in a few flowers and evergreens, he would, from such salutary and healthful occupations, form a kind of attachment to the vegetable kingdom, and instead of wantonly destroying, impairing, or cutting the trees, of which we have so many disgraceful proofs, he would feel a disinclination to offer them any injury.

The mutilating of statues, even in our church yards, the destruction of the cope stones of walls and bridges, and of the very mile stones on our public highways, are instances of wanton mischief which we believe to be more often seen in Scotland than elsewhere, and it is a disgrace to the most enlightened and virtuous peasantry in the world. We have sometimes thought that this moral phenomenon is to be traced to the remains of the spirit of destroying statues and temples, to which the horrors of the oppression, usurpations, selfishness, and corruptions of the Church of Rome, drove our ancestors at the era of the Reformation. Means ought to be employed to counteract this tendency and that which we have suggested may not be altogether devoid of use in this respect.

It is well known how much a regard for the lower animals is cherished by youth, by having some favorite to look after and fondle; and how indifferent to the brute creation, and how reckless of human life, are those who have never been accustomed to take an interest in it. On the same principle, those who have been brought up in heaths and districts bare of wood, are generally observed to do the most wanton mischief to trees.

With a view to such objects, it might be advisable to attach to every parochial school, indeed to all schools, a small plat of garden ground, ornamented with flowers, and most of the plants used for domestic purposes. Such a garden, but upon a larger

scale than would be adopted in ordinary schools, is to be seen at the academy of Dollar, to which the youth have constant access.

It should also be made a part of the master's duty to direct the attention of his scholars to the plants of the garden, to teach them their history, describe their uses, and point out their culture. All this might be easily done, as any master could soon learn all that it is useful to know of such plants, and take pleasure in communicating this knowledge to his youthful charge; and it might be so conducted as to cause little or no interruption to the other laborious exercises of the school. The instructions given as a recreation in the play hours would not be the least valuable, as knowledge is always more readily acquired by the young when it is possible to combine pleasure with mental exertion. As the parochial clergy are now so attentive to this taste for adorning their own dwellings, they would no doubt readily take an interest in such a plan, and encourage the love of it in the school-master and his pupils. Such gardens, small in extent, might be laid out at little expense. They should be kept in order by the master, with the assistance of his scholars, who would soon take much interest and delight in such occupations. Any trifling expense the proprietor might be at in ornamenting these small gardens around the parochial school house, would be amply repaid in the security of his woods from the mischievous schoolboy's knife.

HORT. TRANSACTIONS.

ARTICLE VII.

ON WATER AND WATERING PLANTS.

(Continued from page 227.)

"In other glasses he dissolved several sorts of earth clayey marles, and variety of manures, &c., and set mint in distilled water, and made other experiments of several kinds, to get light and information, as to what hastened or retarded, promoted or impeded vegetation.

"The glass P, was Hyde Park conduit-water: in this he fixed a glass tube ten inches long, the bore about one sixth of an inch diameter, filled with very fine and white sand, which he kept from falling down out of the tube into the phial, by tying a thin piece of silk over that end of the tube that was downwards.

“Upon immersing the lower end of it into the water, this (by little and little) ascended quite to the orifice of the tube : and yet in all the fifty six days that it stood thus, a very inconsiderable quantity of water had gone off, viz. scarcely twenty grains, though the sand continued moist up to the top until the very last.

The water had imparted a green tincture to the sand, quite to the very top of the tube : and in the phial it had precipitated a greenish sediment mixed with black.

Pretty much of the green substance, described above, adhered to the bottom and sides of the tube, as far as it was immersed.

Other like tubes he filled with cotton, lint, pith of elder, and several other porous vegetable substances ; setting some of them in clear water, others in water tinged with saffron, cochineal, &c. and made several other trials, to give a mechanical representation of the motion and distribution of the juices in plants, and some other phænomena observable in vegetation.

Several plants being also set in phials, Q, R, S, &c., were ordered after the same manner with those above, in the following colder months ; these throve not near so much, nor did the water ascend in nigh the quantity it did in the hotter seasons, in which the before cited trials were made.

From these experiments, the observations proceed.

Observation 1. In plants of the same kind, the less they are in bulk, the smaller quantity of the fluid mass in which they are set, is drawn off ; the dispendium of it, where the mass is of equal thickness, being pretty nearly proportioned to the bulk of the plant.

Thus the plant in the glass marked A, that weighed twenty-seven grains, drew off but two thousand five hundred and fifty-eight grains of the fluid ; and that plant in B, that weighed twenty-eight and one-fourth, took up but four thousand and four grains of the fluid ; whereas that plant in H, which weighed one hundred and twenty-seven grains, took up fourteen thousand one hundred and ninety grains of the liquid mass.

The water seems to ascend up the vessels of plants, much after the same manner as up a filter ; and it is no strange thing, that a larger filter should draw off more water than a lesser one ; or a plant, that has more and larger vessels, should take up a greater share of the fluid in which it is set, than one that has fewer and smaller ones can.

617. This he does not note, as a thing very considerable in itself, but chiefly in regard to what he is to offer anon; and that it may be seen, that in other collations of things he has made due allowance for this difference.

Observation 2. The much greatest part of the fluid mass that is first drawn off, and conveyed into the plants, does not settle or abide there, but passes through the pores of them, and exhales up into the atmosphere.

It is certain that the water in these experiments ascended only through the vessels of the plants. The glasses F and G which had no plants in them, though they were disposed of in the like manner as the rest were, remained at the end of the experiment as at first, and none of the water was gone off: and it is certain, that the greatest part of it flies off from the plant into the atmosphere.

“The least proportion of the water expended, was to the augmentation of the plant, as forty-six or fifty to one; and in some the water drawn off was a hundred, two hundred, nay, in one above seven hundred times as much as the plant had received of addition.

This so continual an emission and detachment of water, in so great plenty from the parts of plants affords a manifold reason why those countries which abound with trees and the larger vegetables, especially, should be very obnoxious, owing to damps, great humidity in the air, and more frequent rains than others which are more open and free.

The great moisture in the air was a mighty annoyance to those who first settled in America, which then was much overgrown with woods and groves; but as they were burnt and destroyed to make room for habitations and the culture of the earth, the air mended, and cleared up apace, and became of a temperature much more dry and serene than before.

Nor does this humidity go off pure and alone, but usually carries out along with it many parts of the same nature, whereof the plants, through which it passes, do consist.

It is true, the crasser are not so easily born up into the atmosphere, but are usually deposited on the surface of the flowers, leaves, and other parts of the plants. Hence are produced our munnas, our honies, and other gummous excudations of vegetables.

But the finer and lighter parts are, with so much the greater

case they are sent up into the atmosphere; and thence are conveyed to our organs of smelling, by the air we draw in by respiration, and are either pleasant or offensive, beneficent or injurious to us, according to the nature of the plants from whence they arise.

And since these owe their rise to the water which ascends out of the earth through the bodies of plants, we cannot be far to seek for the cause why they are more numerous in the air; and we find a greater quantity of odours exhaling from vegetables, in warm, humid seasons, than in any other whatever.

Observation 3. A great part of the terrestrial matter, that is mixed with the water, ascends up into the plant, as well as the water.

At the end of the experiment, there was much more terrestrial matter in the water of the glasses F and G, that had no plants in them, than in those that had plants. The garden mould in the glasses K and L was considerably diminished and carried off: nay, the terrestrial and vegetable matter was born up in the tubes filled with sand, cotton &c. and in that quantity, as to be evident even to the sense. And the bodies in the cavities of the other tubes, which had their lower ends immersed in water, wherein Saffron, Cochineal, &c., had been infused, were tinged with yellow, purple, &c.

If it may be permitted to look abroad a while towards the shores and parts within the verge of the sea, there will be found a large scene of plants, that along with the vegetable, take up the mere mineral matter also in great abundance; such as Sea-Purslains, the several sorts of Alga's Samphires and other marine plants.

These contain common sea-salt which is all one with the fossil, in such plenty, as not only to be plainly distinguished on the palate but may be drawn forth from them in considerable quantities. And some affirm, that there are plants found that will yield nitre and mineral salts.

As to vegetable matter, it is manifest how apt and how much disposed it is (being so very fine and light) to attend water in all its motions, and to follow it into each of its recesses, not only from those instances that have been alledged above, but from many others.

If you percolate it with all the care imaginable, if you filter it with never so many filtrations, yet there will remain some ter-

restrial matter: it is true, the fluid will be thinner every time than other, and more disengaged from the same matter, but never wholly free and clear. He says he has filtered water through several, wholly, free, and clear sheets of thick paper, and after that through very close and fine cloth, twelve times doubled, nay, has done this over and over again, and yet after all there was a considerable quantity of this matter discoverable in the water.

Now, if it passes thus through interstices that are so very small and fine, along with the water, it is less strange that it should attend in its passage through the ducts and vessels of plants.

It is true that filtering and distilling of water does intercept and make it quit some of the earthy matter it was before impregnated with; but then that which after this continues with the water is fine and light, and consequently such as in a peculiar manner is fit for the growth and nourishment of vegetables; and this is the case of rain-water.

The quantity of terrestrial matter that it bears up into the atmosphere is not great; but that which it does bear up is mainly of that light kind, of vegetable matter, and also that perfectly dissolved, and reduced to single corpuscles, all fitted to enter the tubules and vessels of plants; and upon this account it is that rain-water is so fertile and prolific.

The reason why, he says in this proposition, that only a great part of the terrestrial matter, that is mixed with the water, ascends up with it into the plant, is, because all of it cannot.

The mineral matter is a great deal of it not only gross and ponderous, but scabrous and inflexible, and so not disposed to enter the pores of the roots; and a great many of the simple vegetable particles do by degrees unite and form some of them small clods or Moleculæ, such as before mentioned in H. K. and L, sticking to the extremities of the roots of those plants.

Others of them entangle in a more loose manner, and form the Nubeculæ, and great bodies, that are commonly observed in stagnant water. When these are thus conjoined, they are too big to enter the pores, which they might have done singly.

(To be continued.)

REVIEW.

The Suburban Gardener and Villa Companion,—By H.C. LAMBTON, F.L.S., H.S., &c.; London: Longman, & Co.

(Continued from p. 259.)

Primula vulgaris, the double, white, double red, and double lilac primroses.

Primula elatior, the double oxlip.

Primula Auricula, different border varieties of auricula.

Primula vulgaris Polyanthus, varieties of double and single polyanthus
Arabis rosea and *albida*, white and red urabis, or wall-cress.

Adonis vernalis, spring-flowering adonis, yellow.

Anemone spennina, alpine anemone, blue.

Iris pumila, dwarf iris, blue.

Omphalodes verna, spring-flowering Vernus's navelwort, blue.

Orobis vernus, spring bitter vetch, purple.

Corydalis bulbosa, the bulbous-rooted fumitory, red.

April.

Phlox subulata and *setacea*, awl-leaved and bristly-leaved phlox, red.

Corydalis longiflora, long-flowered fumitory, red.

Aquilegia canadensis, Canadian columbine, red.

Dodecatheon Meadia, Mead's Virginian cowslip, lilac.

Lychnis Viscaria, the bladder Lychnis, red.

Arabis alpina, alpine arabis, or wall-cress, white.

Anemone nemorosa, the wood anemone, white.

Phlox nivea, the snowy phlox, white.

Draba aizoides, whitlow grass, yellow.

Alyssum saxatile, rock madwort, yellow.

Phlox divaricata, spreading phlox, blue.

Anemone pratensis, meadow anemone, blue, and *A. Pulsatilla*, pulsatilla anemone, purple.

Anemone coronaria, the common anemone, variegated.

May.

Pæonia officinalis, numerous varieties of the common peony, crimson, red, and white.

Papaver bracteata and *corientalis*, scarlet poppies.

Campanula glomerata, double and single white and blue bell-flower.

Dianthus Caryophyllus, different varieties of the common pink, clove, and carnation, white, red and variegated.

Lupinus polyphyllus, purple and white lupine.

Iberis Tenoreana, Tenore's candy-tuft, white.

Lamium album, white dead nettle.

Orobis angustifolius, narrow-leaved bitter vetch, white.

Ranunculus aconitifolius fl. pl., the double white batchelor's buttons, or fair maid of France.

Tradescantia virginica, white and purple spiderwort.

Geranium pratense, purple and white-flowered crane's bill.

Alyssum creticum, Cretan madwort.

Mimulus moschatus, yellow musk plant.

Mimulus luteus rivularis and *guttatus*, varieties of the monkey flower, yellow and brown.

Galearia bicolor and *aristata*, yellow and red galearias.

Asphodelus luteus, yellow asphodel.

Ranunculus acris fl. pl., the double yellow bachelor's buttons.

Lineria alpina, blue toadflax.

Phlox procumbens, trailing phlox, blue.

Aquilegia grandiflora and *valgea*, purple and common columbine.

Lathyrus venosus, blue and purple pea.

Lupinus perennis, perennial lupine, blue.

Pulmonaria virginica, Virginian lungwort, blue and purple.

Nepeta grandiflora, large-flowered cat-mint, blue.

Anchusa italica, Italian buglos, blue.

Aster alpinus, alpine starwort, purple.

Lamium Orvala, purple dead nettle.

Pentstemon atropurpureus, campanulatus, and diffusus, dark purple, bell-flowered, and spreading pentstemons.

Anemone hortensis, garden anemone, variegated.

Verbascum cupreum and *ferrugineum*, the copper-coloured and rusty mullein, variegated.

June.

Dianthus alpinus, *deltoides*, and *atro-rubens*, varieties of pinks, red.

Silene acaulis, the stemless catchfly, red.

Valeriana dioica, common red rian.

Orobis sylvaticus, wood vetch, red.

Antirrhinum majus, double, single, white, red, and variegated snapdragon.

Lychnis chalcedonica, the scarlet lychnis.

Lychnis diurna, the rose campion, red.

Aconitum Napellus, the common monk's-hood, purple.

Lathyrus grandiflorus, the large-flowered pea, red.

Campanula rotundifolia, purple and white bell-flower.

Oenothera speciosa, the showy evening primrose.

Hesperis matronalis fl. pl., double white rocket.

Dictamnus albus, white fraxinella.

Linum perenne, perennial flax, white.

Polemonium caeruleum and *album*, the common purple and the white Greek valerian.

Asphodelus ramosus, the branchy asphodel, white.

Epilobium angustifolium, white and red French willow-herb, red.

Caltha palustris fl. pl., double-flowered marsh marigold, yellow.

Oenothera macrocarpa, and other species of evening primroses, yellow.

Aconitum grandiflorum, and other species and varieties of monk's-hood.

Chryseis (*Eschscholtzia*) *californica*.

Californian eschscholtzia, yellow.

Asphodelus luteus, yellow asphodel.

Trollius europæus, common globe flower, yellow.

Pentstemon confertus, crowded pentstemon, yellow.

Geghiana lutea, yellow gentian.

Ajuga pyramidalis, the pyramidal bugle, blue.

Delphinium elegans, and various garden species and varieties of larkspur, blue and purple.

Iris germanica, the German iris, blue and white.

Pentstemon speciosus, showy pentstemon, blue.

Lamium maculatum, spotted dead nettle, purple and reddish lilac.

Lychnis diurna, rose campion, red and white.

Verbena Lambertii, Lambert's verbenas, purple.

Verbascum phœniceum, dark purple mullein.

Dictamnus Fraxinella, purple fraxinella.

Anchusa angustifolia, narrow-leaved bugloss, blue and purple.

Geranium lancastriense, the Lancaster crow's bill, variegated.

July.

Oenothera rosea, red evening primrose.

Phlox stolonifera, *glaberrima*, *pyramidalis*, and various other phloxes, red, lilac, and purple.

Veronica incarnata, the flesh-coloured speedwell.

Saponaria officinalis, and fl. pl., single and double soapwort, red and white.

Monarda didyma, scarlet monarda.

Chelone barbata, the bearded chelone, red.

Lathyrus tuberosus, the tuberous-rooted vetch, red.

Campanula persicifolia, double and single white peach-leaved bell-flower.

Gentiana Saponaria, soapwort-leaved gentian, white.

Phlox suaveolens, the sweet-scented phlox, white.

Alyssum montanum, mountain madwort, yellow.

Galaria aristata, bristly galaria, yellow.

Coreopsis grandiflora, large-flowered
coreopsis, yellow.

Hypericum Elatum, St. John's wort.

Dracocephalum grandiflorum, large-
flowered dragon's head, blue.

Campanula carpatica, Carpathian bell-
flower, blue.

Veronica azurea, *maritima*, and others,
different kinds of speedwell, blue,
Aster alpinus and *amelloides*, purple
asters.

Statice reticulata, purple sea lavender.

Pentstemon atropurpureus, and vari-
ous purple-flowered species of
pentstemon.

Lobelia speciosa, showy lobelia, pur-
ple.

Lythrum Salicaria, willow herb, pur-
ple.

Monarda fistulosa, purple monarda.

August.

Veronica carnea, flesh coloured speed
well.

Pentstemon angustifolius, narrow-
leaved pentstemon, red.

Phlox pyramidalis, and other red
phloxes.

Gypsophila prostrata, trailing gypso-
phila, white.

Aster albus, white aster.

Coreopsis tripteris, *aurea*, and verti-
cillata, and different kinds of yellow
coreopsis.

Gentiana asclepiadea, *asclepias*-like
gentian, blue.

Commelina erecta, upright comme-
lina, blue.

Aster spectabilis and *Novi Belgii*,
New York asters, blue.

Verbena venosa, veiny verbena, blue.

Aster alpinus, purple asters.

Stenactis speciosa, showy *stenactis*,
purple.

Lythrum virgatum, twiggy willow
herb, purple,

Aster concolor, self-coloured aster,
purple.

Campanula versicolor, variegated bell
flower.

Calendula stellata, starry marigold,
yellow.

Polygonum orientale, *persicaria*, red.

September and October.

Epilobium alpinum, alpine French
willow herb, red.

Gentiana incarnata, flesh-coloured
gentian, red.

Aster vimineus, twiggy aster, red.

Phlox triflora and *Wheeleriana*, three-
flowered and Wheeler's phlox, red

Aster humilis, *diffusus*, and other
dwarf-spreading and other asters,
white.

Achillea cretica, Cretan milfoil, white.

Boltonia asteroides, aster-like bolto-
nia, white.

Coronilla minima, the least coronilla,
yellow.

Solidago humilis, dwarf golden rod,
yellow.

Oenothera scrotina, late evening prim-
rose, yellow.

Gentiana Catesbaei and others, Cates-
by's and other gentians, blue.

Scabiosa australis, the southern sca-
bious, blue.

Aster corymbosus, *spectabilis*, and
others, different kinds of asters,
blue.

Veronica elatior, the taller speedwell,
blue.

Statice reticulata, the netted sea la-
vender, purple.

Gentiana intermedia, intermediate
gentian, purple.

Phlox Carolina and *suffruticosa*, Ca-
rolina and suffruticose, or half-
shrubby, phloxes, purple.

Aster Nova Angliæ and others, New
England asters, purple.

Veronica altissima, the highest speed-
well purple."

THE BIBLE GARDEN,—containing a brief description of all the Trees and Plants mentioned in the Holy Scriptures; by JOSEPH TAYLOR. The Illustrations selected and etched on Steel by W. H. BROOKE, F. S. A.—London: Dean & Munday, 1836.

PALM TREE

Phoenix dactylifera.

"AND they came to Elish, where were twelve wells of water and three score and ten palm-trees: and they encamped there by the waters."—*Exodus*, xv. 27.

"THE Palm-tree is found in a variety of the warm countries in the south of Asia, and the north of Africa; they were numerous on the banks of Jordan, but the best were those around Jericho and Engiridi, which latter place is for that reason called Hazazon-tamor, the cutting of the Palm-trees. This tree grows very tall and upright, and its leaves retain their greenness through the whole year; the more it is exposed to the sun the better is its growth.

Palm-trees produce but little fruit, till about thirty years old, after which while their juice continues, the older they become the more fruitful they are, and will bear three or four hundred pounds of dates every year. The date is a most sweet, luscious kind of fruit, on which most of the inhabitants of Persia, Arabia, and Egypt, entirely subsist.

A species of rich honey or syrup, and a spirituous fermented liquor called Araky, are obtained from it; there is also extracted from the palm-tree a kind of wine, which is perhaps what the Scripture calls *shichur*, or strong drink.

As the sap is chiefly in the top of the tree, when they intend to extract a liquor from it, they cut off the top, where there is always a tuft of spring leaves about four feet long, and scoop the trunk into the shape of a bason: here the sap ascending lodges itself at the rate of three or four English pints a day; for the first week or fortnight, after which it gradually decreases, and in six weeks or two months the whole juice will be extracted.

As palm-trees were accounted symbols of victory, branches of palm were carried before conquerors in their triumphs; and in allusion hereto, the saints are said to have *palms in their hands*, to denote the victory over sin, Satan, the world, the persecutions of Antichrist, &c. *Rev.* vii. 9.

A remarkable experiment to prove the fructification of this tree, occurs in the 47th volume of the Philosophical Transactions. There was a great palm-tree in the garden of the Royal Academy at Berlin, which flowered and bore fruit for thirty years, but the fruit never ripened, and when planted did not vegetate; this tree Linnaeus discovered to be a female plant, and as there was no male palm in its vicinity, the flowers never came to maturity.

At Leipzig, twenty German miles from Berlin, was a male plant of this kind, from which, in April 1740, a branch of flowers was procured, and shaken, so that the dust, or farina, fell upon the flowers of the unfruitful tree. This experiment was so successful, that the palm-tree produced more than a hundred perfectly ripe fruit, from which they had eleven young palms; on repeating the experiment next year, the palm-tree produced above two thousand ripe fruit. This experiment fully established the fact attested by the ancients concerning the Palm-tree; which some have regarded as fabulous.

This tree exhibits great variety in fruit, size, quality, and colour: twenty different kinds have been enumerated. Perhaps no tree whatever is used for so many and such valuable purposes as the Palm, or date tree; even the stones are given to camels and sheep as food."

The Orchidaceæ of Mexico and Guatemala.—By James Bateman, Esq. Part I. Imp. folio. Ridgway and Sons, London, 1837.

The 1st. Part of this splendid work has appeared, (one of which we borrowed) 120 copies have been printed, and it is highly gratifying to learn that about eighty of them have been subscribed for. And the others will doubtlessly soon be bought up, when the copies of the subscribers are perused. In the introductory remarks the Author notices the great extent of this noble family of plants, and observes :—

“Asia, Africa, and America will, perhaps, be found to divide the species of the order amongst them into three nearly equal proportions (for the few which Europe produces need scarcely be taken into the account); and the closer we approach the tropics, the more numerous and beautiful they become. Arrived, at length, within the precincts of the torrid zone, we find them no longer ‘prone on the ground,’ as heretofore, but conspicuous on the branches of the most rugged trees of the dampest and wildest forests, attracting the eye of the naturalist from afar, by the dazzling brilliancy of their colours, or arresting his attention by their delicious fragrance. And here we must take occasion to observe, that, although plants of this description are not unfrequently termed ‘parasitic,’ the epithet is altogether misapplied; for, while the parasites prey upon the vital juices of their victims, and perish with them, the ‘epiphytes’ derive nothing but their stay, or local habitation, from the plants on which they have established themselves: and continue to flourish and flower, indifferent whether their supporters live or die. The great majority of the Orchidaceæ of the tropics belong to the latter, or epiphytic, class; there are, however, a few that do not, as was long ago observed by the same ingenious Rumphius to whom we have already had occasion to advert. After noticing, in terms of due commendation, the dignified habits of most of the tribe, he proceeds, with a sigh, to remark that ‘among these vegetable nobles, just as among the nobles of mankind, some degenerate individuals are ever to be found, who are on the ground always, and seem to constitute a class of their own.’ But it is not merely in their habits that the terrestrial species are placed below the epiphytes, they are also greatly inferior to them in singularity and beauty.

“The Orchidaceæ of each of the three great divisions of the globe have features of their own, so marked and peculiar, that, in most cases, a practised eye would have little difficulty in referring even a totally new form to its proper habitation. Thus, for example, the pendent stems and graceful flowers of many of the dendrobiums, *serides*, and their allies, give a character of beauty and lightness to the orchidaceous flora of tropical India, which contrasts most strongly with the clumsy pseudobulbs of the *bolbophyllums*, or the long tails of the *angræcums* of Africa. Again, in America, the characteristic features are, the upright vegetation (as distinguished from the pendent) of the *epidendrums*, the long straggling flower-spikes of many of the *oncidiums*, and a much greater variety of grotesque and marvellous forms than is to be met with in any part of the Old World.

“The uses to which the plants of this family are applied are few; but, in several instances, highly romantic. In Demerara, that most dreadful of all poisons, the ‘Wourali,’ is thickened by the juice of the *catasetums*; and in Amboyna, the true ‘Elixir of Love,’ is prepared from the minute farina-like seeds of the *Grammatephyllum speciosum*, which plant has just been received in England, in a living state, from Mr. Cumming. We tremble for the consequences, if what Rumphius says of its properties be true; asserting, as he does, ‘*Mulierem prosequi amore talem, a quo hanc farinum cum cibo, vel*

potu, accepit !' In Mexico, where the 'language of flowers' is understood by all, the Orchidaceæ seem to compose nearly the entire alphabet. Not an infant is baptised, not a marriage is celebrated, nor a funeral obsequy performed, at which the aid of these flowers is not called in by the sentimental natives, to assist the expression of their feelings. They are offered by the devotee at the shrine of his favourite saint ; by the lover, at the feet of his mistress ; and by the sorrowing survivor, at the grave of his friend ; whether, in short, on fast days or feast days, on occasions of rejoicing, or in moments of distress, these flowers are sought for with an avidity which would seem to say that there was no sympathy like theirs ;—thus ' Flor de los Santos,' ' Flor de Corpus,' ' Flor de los Muertos,' ' Flor de Maio,' ' No me Elvides' (or forget me not), are but a few names out of the many that might be cited to prove the high consideration in which our favourites are held in the New World. Nor are these the only honours that are paid to them ; for Hernandez assures us that, in Mexico, the Indian chiefs set the very highest value on their blossoms, for the sake of their great beauty, strange figure, and delightful perfume ; while in the East Indies, if Rumphius is to be credited, the flowers themselves positively refuse to be worn, except by princesses or ladies of high rank. In Honduras, again, the large, hollow, cylindrical stalks of a fine species of Epidendrum are made into trumpets by the little boys and girls of the country ; and the pseudo-bulbs of several of the more succulent species are used instead of resin for the strings of their guitars. The following are, however, almost the only known instances in which the tribe do any direct service to mankind. The bulbs of *Maxillaria bicolor* contain a large quantity of an insipid watery fluid, which is greedily sucked by the poor native of Peru in the dry season. A fluid of a similar nature is obtained from what is probably a *lælia* in Mexico, and is administered as a cooling draught in fevers. From the roots of some of the orchises, even in Europe, the nutritive substance called 'salep' is obtained ; in New Zealand, certain species, are of considerable importance as esculents ; and, in Guiana, the soles of the shoemaker are much indebted to the viscid matter obtained from the *catase-tums* and *cyrtopodiums*, as are the poisoned arrows of the Indian. In this list the vanilla is not included, as that plant has recently been separated (no doubt, most judiciously) by Dr. Lindley from the natural order Orchidaceæ, and constituted the type of a new order of its own." (page 3.)

The Drawings, Engravings, Colouring, &c. are in a very superior style: Every admirer of this truly interesting and beautiful flowering tribe of plants, who can afford the expense, ought to possess a copy of the work.

AGAVE AMERICANA.

We understand that the fine specimen of this magnificent exotic in the ladies' flower-garden at Clowance, the seat of Sir John St. Aubyn, Bart, is now in a state of blossoming, and upwards of two thousand of the flowers are expanded ; and so richly are these blossoms supplied with honey, that it actually drops from them. From the vast number of flower buds, there is no doubt but this curious and interesting flower will continue in bloom for the space of five or six weeks. No fewer than one thousand three hundred and sixty persons have already seen and admired this most beautiful plant, and we have every reason to believe many hundreds more will be added to the number. (*West Briton*, October 6, 1837.)

PART II.

LIST OF NEW AND RARE PLANTS,

*Noticed since our last.*1. MIMULUS HARRISONIA. *Harrison's Mimulus.* [Pax. Mag. Bot. 173]

SCROPHULARIÆ. DIDYNAMIA ANGIOSPERMIA.

This very showy variety was raised in the nursery of Mr. Lowe of Clapton near London. It is from impregnation between *M. cardinalis*, and *M. roseus* being sown, the present variety was one of them. The habit of the plant approaches that of the vigorous *cardinalis*. The flowers that of *roseus* but they are much larger, and of a much finer rosy-red colour, than any we have seen produced by the most vigorous of *roseus*. It is very showy, growing three feet high, and we think the finest kind in cultivation in the country. It deserves a place in every flower garden or greenhouse.

2. MONACHANTHUS DISCOLOR, var. VERIDIFLORENS. *Dingy Mint flower, green flowered variety,* [Bot. Mag. 3601.]

ORCHIDÆÆ. GYNANDRIA MONANDRIA.

A native of Demerara. The present variety has bloomed in the Glasgow Botanic Garden. The flower scape is about half a yard long producing a loose raceme of from seven to nine flowers, of a yellowish green colour nearly destitute of fragrance. Each flower is about an inch across. *Manachanthus*, from *Monah*, a monk; and *Anthos*, a flower.

3. ONCIDIUM LURIDUM. *Dingy flowered.* Bot. Mag. 3603.ORCHIDÆÆ. GYNANDRIA MONANDRIA. SYNONYMS. ONCIDIUM CUNEA-
TUM. EPIDENDRUM GUTTAUM. CYMBIDIUM GUTTATUM.

The scape rises about three feet high, producing numerous flowers, each near two inches across; they are of a pale yellow with large brown confluent spots. It has bloomed in the collection at the Edinburgh Botanic Garden, where it had been received from Trinidad.

4. OXALIS ALBA. *White flowered Wood Sorrel.* [Brit. Flow. Gard. 398.]

This species is probably a native of America, but of this there is no certainty. Dr. Neill of Edinburgh, possesseth the plant, and it has bloomed in that Gentleman's collection. The flower stem rises about nine inches high, one flowered. The flower is about an inch and a half across of a pure white.

5. CONVULVULUS DIVERSIFOLIA. *Three lobed Convolvulus Major.* (Bot. Reg. 1988.)

An half hardy annual plant, a native of Mexico, seeds of which were sent to the London Horticultural Society, by G. F. Dickson, Esqr. The plant grows to about half the size of the *Convolvulus major*. The flowers too are about half the size of the *C. major*, of a fine azure blue, with five red plaits. The under side of the flower is rather inclined to a flesh colour. Altogether a very handsome flowering species, which would be very ornamental

to the flower garden. *Pharbitis*, from *pharba*; colour. Referring to the elegance and variety of colours in the flowers.

6. *PODOLOBIUM STAUROPHYLLUM*. *Cross leaved*, (*Paz Mag. Bot.* 171.

LEGUMINOSÆ. DECANDRIA MONOGYNIA. SYNONYME *PODOLOBIUM ACQUIFOLIUM*.

The plant is a native of New Holland. It is a highly ornamental greenhouse shrubby plant, growing from three to four feet high. It flowers most profusely, each flower is about half an inch across, of a fine rich yellow, having a deep red streak along the under side of the keel. It has bloomed in the very select collection of W. Bowes, Esqr., Broughton, near Manchester. *Podolobium*, from *podos*, a foot, and *lobos*, a pod.

7. *SCUTELLARIA ALPINA*, var. *SANGUINEA*. *Red Alpine scullcap*. [*Brit. Flow. Gard.* 399,

A hardy perennial plant, whose flower stalks rise to about five or six inches high, each terminating in a large headed spike of flowers, much resembling in form those of the common *Prunella vulgaris*. The blossoms are of a pretty reddish-purple, it continues in bloom a considerable time. It is a very showy flowering plant, very suitable for a rock work, or edging for a bed or border. It is cultivated at the Birmingham Botanic Garden. *Scutellaria*, from *scutella*, a little dish or saucer; alluding to the form of the calycine appendage.

8. *MILTONIA SPECTABILIS*, *Showy Miltonia*.

[*Bot. Reg.*

ORCHIDACEÆ. VANDÆ. GYNANDRIA MONANDRIA.

This very beautiful species would appear to be a native of Brazil, and to have been brought into notice about the same time, both by George Barker, Esq. and Messrs. Loddiges: in the latter collection it flowered during July last. It is allied to and in habit resembles *Brassia*. The flowers are solitary but very large, of a whitish yellow above, and the lip or sepal of a rosy purple. Dr Lindley observes, I had promulgated the name of *Miltonia spectabilis* previously to hearing that Messrs. Knowles and Westcott had called the plant *Machrochilus Tryannus*, and as the former name was published a month earlier, the latter will have to give way.

"The genera *Brassia*, *Miltonia*, *Cyrtorchilum*, *Odontoglossum*, and *Oncidium*, are closely related, and no doubt form the nucleus of a group of Vandæ, the limits of which remain to be ascertained. Of these *oncidium* has a column with two ears and a distinct lobe; *Miltonia*, a column with two ears and an entire lip, partially united to the base; *Odontoglossum*, a winged column and entire lip, partially united to it at the base; *Cyrtorchilum*, a winged column and a distinct and entire lip; and finally, *Brassia* has a column that is neither winged nor eared, and a distinct entire lip. I say nothing of the tubercular process upon the lip of all the genera, for I do not see how they will serve with any certainty to distinguish them. Moreover, *Oncidium* and *cyrtorchilum* should have ungulate (narrowed part at the base, as in the pink and the carnation) sepals (floral leaves) and petals, while all the other genera have them sessile. While, however, such are the real distinction between these genera, I am by no means sure that all the species now stationed under them are rightly placed. But that is a question I cannot enter into at this time."

As standing connected with the above, the following species are also noticed:—

Cyrtorchilum Karwinskii—said to be a noble species, with flower two inches and a half in diameter; flowers blotched with brown on a yellow ground.

Odontoglossum Angustatum—three and a half inches in diameter, beauti-

fully blotched with brown, on a yellow ground. *Miltonia*, so named in compliment to a most distinguished patron of Floriculture, the Earl of Fitzwilliam.

9. *PHILIBERTIA GRACILLIS*, *Slender Philbertia*. [Brit. Fl. Gard.

ASCLETIADÆ. PENTANDRIA DIGNYIA.

"This new and well-marked species of a very distinct, hitherto little but known genus of the curious family of *Asclepiadæ*, was discovered by Mr. Tweedie, in the country between Buenos Ayres and Tucuman, and he forwarded seeds of it to his correspondents, under the name of green flowering *Asclepias*, of saint Katherino."

The plant was raised in the garden of our worthy friend Dr. Neill, at Canonmills, near Edinburgh, and in other collections in the spring of 1836.

It is nearly allied to the genus *Sarcostema*; for the opportunity of figuring this plant, Mr. Don expresses himself indebted to Mr. James Macnab, of the Experimental Gardens, Edinburgh, and to Mr. Lawson, gardener to Mr. Neill, who also supplied him with the following information relative to its culture. "The specimen sent is from a plant raised here out of Tweedie's seeds, of 1836, collected between Buenos Ayres and Tucuman, last year; the plant grew about a foot and a half, and was very slender; I kept the plant all winter, trained to a rafter in the vinery, where it retained its leaves, and it did not appear to suffer in being occasionally exposed to a little frost; very little fire having been employed.

10. *BEGONIA INSIGNIS*, *Noble-flowered Begonia*. [Bot. Reg

NAT. ORD. BEGONIACEÆ. CLASS MONOECIA POLYANDRIA.

An upright growing plant, with fleshy stems, of a green colour; leaves oblique, as are most of the genus, heart-shaped, oblong lanceolate, hairy, much gagged and serrated on a purple margin. The racemose clustered flowers are of a rose-colour, and produced in great profusion.

It is said to grow freely in a good greenhouse, but that it attains its greatest perfection, at least during its growing season, when placed in a stove. The season at which it flowers, renders it, as well as many of the same genus, desirable as a stove plant, bearing its largest clusters of beautiful rose-coloured flowers, in the months of December and January. "Many species are conspicuous for the size and richness of their foliage, but more from the greatness and the fineness of their blossoms." It was introduced from the Berlin Garden, and it is probably a Brazilian species. We have not, however, seen any wild specimens. *Begonia*, in compliment to M. Begon.

11. *TWEEDIA CÆRULEA*, *Blue-flowered*. [Brit. Fl. Gard. 407.

ASCLEPIDACEÆ. PENTANDRIA DIGNYIA.

Mr. Tweedie discovered this pretty flowering plant in Buenos Ayres. Plants were raised in the Glasgow Botanic Garden, where seeds were sent by Mr. Tweedie. Seeds have also been distributed to other places, so that the plant will soon become common. It is very ornamental, and deserves a place in every flower garden. The flower stems rise from two to three feet high, producing fine spikes of pretty blue flowers, the underside rather of a rosy colour. Each blossom is more than an inch across. *Tweedia*, so named after the late Mr. Tweedie.

12. *ROSA INDICA*; var. *BLAIRII*, *Blair's New China Rose*.

This is a very handsome variety, raised a few years ago by Mr. Blair from seeds of the yellow China, impregnated by the pollen of the Tuscan. The flower is very double, the petals are yellowish towards the base, and some of them striped towards the middle.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A NEW ARCTOTIS.—Let me mention that I had an *Arctotis* in flower during the summer sent from the Cape under the name of *A. dentata*, which species I cannot find in London's latest catalogues; it is a yellow flower, much like a marigold. When in flower, I will send you a drawing of it if you think it worthy of attention. Its name, I conclude, is derived from the leaves.

Arctotis's, if we had a leaf and description of its habit, it would afford us a better opportunity of judging of its specific distinction, and whether if it be entirely new to this country. A specimen left at our publishers would be forwarded to us. We should be glad of a drawing of the flower.—CONDUCTOR.

ON INDIAN BULBS.—I have just received some East Indian Bulbs, among others a *Crinum*, about a foot and a half long. Would you cover them entirely with earth, or, a nurseryman tells me, to insert four or five inches? I should like much that somebody would describe the treatment of them, whether they will do with greenhouse temperature, to be left on the shelf, or covered with ashes?

Planted at the depth above-named is quite sufficient. We hope some of our readers will furnish our correspondent with an article on their general culture at an early opportunity.—CONDUCTOR.

ON CALOCHORTUS.—Perhaps you, or some of your correspondents will inform me whether the varieties of *Calochortus* have been grown successfully in the open border, without being forwarded by a greenhouse temperature. Also where all the varieties are to be obtained, and at what price per bulb.

C. P. O.

ON A LIST OF HERBACEOUS PLANTS.—Mr. Brown has done the Florists great service by his List of Herbaceous Plants given in Vol. IV. page 274, and I hope Mr. Brown will favour us with a list of after species and varieties as soon as opportunity will permit.

A LOVER OF HERBACEOUS PLANTS.

ON A LIST OF DAHLIAS.—I hope Mr. Conductor you will furnish us with a list of all the new rare varieties of the Dahlias which have been exhibited at the different exhibitions this year, as early as possible which will much oblige a

DAHLIA GROWER.

We have a list in preparation, which will appear in January or February Numbers. We have visited nearly all the principal collections purposely to ascertain the merits of the best, and to take notes of them.—COND.

ANSWERS.

Being just returned from a tour round Norfolk, Essex, and Cambridgeshire, I am enabled to answer a query in page 211 concerning where *Delphinium Chinensis grandiflora* is to be obtained. Being in the line, I have visited many gardens lately, but saw the plant in none save at the botanic Garden,

at Bury St. Edmunds, where that and many other rare hardy plants grow in a style that we Londoners never dream of. AN OLD SUBSCRIBER.

ON KEEPING GERANIUMS IN WINTER.—If "Pedro" would rather keep his Geraniums in the ground during the winter, he has but to cut them down to within a few inches of it. I cover them with wool or cotton, tied tightly round the stems. Myrtles, he will find, make splendid plants in this manner.

Nov. 1st. 1837.

J. G.

REMARKS.

ON THE WIRE WORM.—Having seen many enquiries respecting the manner in which the wire worm might be destroyed, induces me to send you my method of treatment for their destruction. For nearly two or three seasons I had nearly all my Dahlia plants destroyed by these destructive pests the wire worm. After having tried various experiments, that of burnt earth succeeded entirely to my satisfaction, not having a plant the following season injured. Thinking this might prove beneficial to numbers of your readers, if you think it worth insertion it is at your service,—The burnt earth may be made, by burning the refuse of the garden in dry weather.

ON MANURES.—Manures which stand next to the mineral mixtures of sandy clay, and chalk, are Potash and Carbon, which may be obtained in a mass, cheaply and readily, by digging a hole, paving the bottom, and by putting into it all weeds and refuse vegetables, and occasionally a layer of quick lime, refuse water from the house, particularly soapsuds, (which contain potash), chamberlye, refuse from the pigs, cows, slop pail, &c., these will in a few months, be so decomposed and enriched by the aid of the lime, that a mass of potash and carbon will be obtained, and these are the origin and basis of all vegetables.

An accumulated mass of manure should never be allowed to have the liquor run away from it, for its very essence, is potash, (a piece of wood can have its potash washed out by continual running).—All dung heaps therefore, should have an earth under them, of a different nature to the soil which they are intended for as a dressing; for example, if we desire to enrich a heavy clay soil, we must have sand or road scrapings and a little lime, if it can be procured, laid under each dung heap; and if we desire to enrich a sandy loam, we must lay chalk and marl, or chalk and clay, under our dung-heaps. For the husbandry of manures and their increase, let all animals be kept with a sand, or other earth, under their litter at all times, to soak up the moisture; a turf might be laid over the stable, cow-house, or pig-sty, and removed every week, and thus would a great accumulation of vegetable stimulus be obtained, and the method would be a husbandman-like process—a gathering of gold.

STABLE DUNGS, which ferment, should be buried in the ground, as early as possible after coming from the horses, for every gas, or steam, which passes from it fermenting is a loss of its nutritive substance; for all manures are but a concentrated mass of gases: air and water, or their component parts, are the bases of all manures which have vegetable origins.

SUGAR SCUM—is a favourite manure for those lands where there is a want of chalky matter, particularly on the sands, previously to a crop of turnips; but this scum is principally composed of lime; and a better article can be obtained from pounded chalk that has soaked up the juices from a dung-hill:

SOAP ASHES—are composed of lime, (converted again into chalk), and soda: this is a good and lasting dressing on a dry sandy soil.

ROUGH POTASH—from saltpetre works, is the best of all dressings: it is the vegetable itself concentrated in a state ready to enter at once into the fibres of young roots of plants, when aided by water.

LIME—when thrown over land, is quickly converted again into chalk, by imbibing from the air that acid which had been driven off by fire; hence chalk is as good if put on the land in the winter, because the frost acting on the water in it, expands and crumbles the article to pieces.

"**SALT**—is a soda in union with an acid, and acts on land in the same manner as many other manures, by holding moisture for the service of vegetation; but the article of common salt does not enter so much into the composition of land vegetables, as the salt of potash, that is, saltpetre, or vegetable alkali, as it is called.

CHEAP EFFICACIOUS MANURE.—Raise a platform of earth on the headland of a field, eight inches high, and of any width and length, according to the quantity wanted. On the first stratum of earth lay a thin stratum of lime, from the kiln; dissolve or slake this with salt brine from the rose of a watering pot; add immediately another layer eight inches thick of earth, then lime and brine as before, carrying it to any convenient height. In a week it should be turned over, carefully broken, and mixed, so that the mass may be thoroughly incorporated. This compost has been used in Ireland—has doubled the crops of potatoes and cabbages, and is superior to stable dung.

GYPSUM—is a dressing used with a variety of effects on different lands, and for different purposes; it is a line in union with sulphur, being a refuse from plaster makers. Those crops which are cut green, take up gypsum, which constitutes a part of their substance, such as sainfoin, clover, lucern, peas, tares, and such like crops. To these, this mineral dressing will be good, but it is injurious on a chalky land, and when animal and vegetable manures are easily obtained, it is not worth using; for they yield a sufficiency of gypsum to the soil. Sir H. Davy considered that an acre of tares took up several pounds of gypsum.

BONE DUST—is now a very favourite dressing for turnips, and indeed many other crops; it is principally composed of lime and phosphorous, which readily enter into the composition of grain, and all grasses. A portion of lime and phosphorous is also found in all milk, and goes to form the bones of young animals which suck; the staler the milk, the less phosphate of lime is there in it. This bone dressing for land, is a very expensive article, and should be cautiously used. Coal ashes, especially if laid under dung-heaps, are an excellent dressing for clays, by opening and enriching the soil, and like soot, impart a carbon or charcoal to the soil, of which all clays are deficient.

In all these manures we find lime an active principle, except in the salt dressings. Lime imbibes carbon, which is the woody principle, and also holds moisture for the service of vegetation. If we cannot procure large quantities of these manures, we must entice air and water to the roots of plants, by every means in our power; and this may be done with the greatest facility, by repeated movings of the surface, a hoeing being equal to a shower of rain.

There is another source of vegetable vigour, to be obtained without decayed vegetable, or mineral dressings. Land having had a trenching, when it can be done, and having had it lain up in ridges for the air, the sun, and the frost, to impregnate it with those gases which the soil requires, then may we proceed to sow seeds, let the soil be ever so single a mineral. If a bare sand, a dense clay, a shallow chalk, some seed may be found which is particularly adapted to the soil. Buckwheat, rye, tares, lucern, rape, white clover, trefoil, lotus; some one or other of these will grow readily in sandy land which has been so trenched without manures, and when grown they may be buried in a soil as manure for a spring crop. Potatoes, carrots, mangel-wurzel, and turnips, may be thus obtained, as well as spring corn crops, peas, and beans. All the cabbage tribe, red clover, beans, are congenial to the clays, and sainfoin is congenial to the chalks and loose soils."

COTTAGE FARMER.



Eucalyptus globulus



Eucalyptus pumilio

ON THE TREATMENT OF LANTANA SELOWI AND LANTANA MUTABILIS, AS SUMMER BORDER PLANTS. BY F.H.S.—I wish to draw the attention of the lovers of Flora to those lovely plants *Lantana Selowi* and *Lantana Mutabilis*. I have seen them cultivated in hothouses and in most counties of England, but with miserable success: such being the case, has stimulated me to send you my method of their culture, which you will find to be very different from what you have seen practised.

As early as possible in September you may take off a quantity of cuttings and insert them in sand and peat, under a bell glass: give them a little bottom, and they will be perfectly rooted by the first week in October, when they must be potted singly in small pots, using a mixture of equal parts, of leaf soil, peats and loams. As soon as the plants have attained six inches in length, pinch off the leading shoots in order to keep them dwarf; let them be kept in a cool greenhouse until the early part of April, when a bed must be prepared for their reception. I have found the following preparation to answer well:—

Whatever bed I choose upon, the whole of the soil is taken out of the depth of eighteen inches, and filled with equal parts of well decayed leaves, peat, and loam; "the latter being of a forcible texture." After being well mixed together, and allowed to settle for a few days, the plants are turned out alternately over the bed at two feet apart. The plants are trained prostrate over the bed, similar to the habit of *Verbena twediana*. Nothing can exceed in splendour a bed of these when in one mass of bloom. I had a bed treated in this manner last year, which was the admiration of all who saw it, and which was one mass of bloom from June to November. I find it necessary every season to prepare a stock of young plants for turning out the next spring, which are treated as already stated. I have found several other valuable exotics do equally as well as those above named, when treated in a similar manner, the particulars of which I intend sending you at an early opportunity."—GARDNER'S GAZETTE.

SEEDS OF DELPHINIUM BEING POISONOUS.—The seeds of *Delphinium staphisagaria* yield an alkaloid, called Delphinia, which exists in it in the state of a malate of Delphinia, and which is possessed of great virulence. It probably exists in the other species of the genus, not only in the seeds, but probably also in the leaves.

It is remarkable that insects do not prey upon leaves of any species of *Delphinium*, which may possibly be owing to the fine instinct with which they are endowed, indicating to them the presence of a principle which would be to them detrimental. The consequence of insects abstaining from these plants is, that the leaves are not disfigured by their ravages, but remain whole till they wither and fall off. This renders them desirable objects of cultivation; but they should be placed out of the reach of children, as the poisonous properties they possess, might cause fatal accidents. BOTANIST.

REFERENCE TO PLATE.

1. *Fuchsia fulgens*. This most splendid species has been introduced into this country by Mr. Lee, Nurseryman, Hamersmith, near London, and is unquestionably far the handsomest kind in the country. We could not give the foliage in its proper size, each full grown leaf is about five inches long and four broad, of a fine green above and purple beneath, having a noble appearance, and in this respect alone is an object of attraction. The flowers are produced at the ends of the shoots, we saw clusters of from eight to ten flowers, but we have been informed, that as many as from fifty to sixty have been grown in a cluster. It is a most desirable plant, and would be an ornament to every greenhouse, conservatory, or flower border. The plant is of

vigorous growth, and growing rapidly would soon make a most magnificent object.

2. *Tecoma jasminoides*. (Synonym *Bignonia jasminoides*.) This most beautiful flowering plant has bloomed in the collection of Messrs. Chandler, Vauxhall, London, where we saw it this Summer. It is a highly ornamental plant, for the conservatory or greenhouse, where grown as a climber or trained to cover a space, it would produce a beautiful effect. The plant is of quick growth when established, and in every account merits a place in every conservatory or greenhouse.

FLORICULTURAL CALENDAR FOR DECEMBER.

PLANT STOVE. Roses, Honeysuckles, Jasmines, Persian Lilacs, Azaleas, &c. required to bloom from January, should be brought in early in the present month, the plants should be placed at first in the coolest part of the house, never allow them to want water. Pots or boxes containing bulbous rooted flowering plants as Hyacinths, Narcissuses, Persian Irises, Crocuses, &c., should occasionally be introduced so as to have a succession of bloom. All stove plants will require occasionally syringing over the tops in order to wash off any accumulated dust from the foliage. Cactus plants that have been kept out of doors or in the greenhouse, should occasionally be brought into the stove for flowering.

GREENHOUSE. As much fire as will barely keep out frost will be necessary and for the purpose of drying up damp arising from foggy nights, or from watering; all possible air should be admitted in the day time, but mind to keep the plants from damage of frost. Chrysanthemus will require a very free supply of air, and a good supply of water; by the end of the month many will be going out of bloom, such should be cut down and, if any kind be scarce, the stalks may be cut in short lengths and be struck in heat, always cut the lower end of the cutting close under the joint. If greenhouse plants require watering, or syringing, over the tops, let it be done on the morning of a clear day when air can be admitted, and towards evening a gentle fire heat should be given.

FLOWER GARDEN.—Be careful to protect beds of what are technically called Florists Flowers, should severe weather occur. Calceolarias that were cut down and repotted last month will require attention, not to water too much or they will damp off, keep them in a cool and airy part of the greenhouse or pithouse. Auriculas and Polyantheses will require plenty of air in fine weather, and but little water (see page 25); the like attention will be required to Carnations, Pinks, &c., kept in pots. Dahlia roots should be looked over, to see if anything are moulding or likely to damage, let the roots be dry if they are laid in heaps. Newly planted shrubs should be secured, so that they are not loosened by the wind. The pots of Carnations and Pico-tees should be placed in a situation where they may have free air, and be raised above the ground; if they are under a glass case, it will be much better than if exposed to the wet and severity of the winter, or many will, in all probability, be destroyed. Where it is desirable to leave patches of border flowers undisturbed, reduce them to a desirable size by cutting them round with a sharp spade. When it is desirable to have a vigorous specimen, it is requisite to leave a portion thus undisturbed. Ten week stocks, and mignonette, in pots for blooming early next spring to adorn a room or greenhouse, must not be overwatered, and be kept free from frost. A cool frame, well secured by soil or ashes at the sides, and plenty of mats or reed covers at the night will answer well. Tender Evergreens newly planted, would be benefitted by a little mulch of any kind being laid over their roots. During hard frosts if additional soil be required for flower beds, upon grass lawns, advantage should be taken to have it conveyed at that time, so that the turf be not injured by wheeling.

INDEX

TO THE PLANTS FIGURED IN VOL. V. 1837.

Facing page Reference.

Adelaide d'Orleans, Rose	193	....	—
Adolphus Ranunculus	169	....	192
Agnes d'Castro, Dahlia	1	....	24
Anagallis lilicina	193	....	—
Bigonnia venusta	49	....	72
Calceolarias Seedlings, No. 1, 2, 3, 4, 5, 6, 7, 8, 49	49	....	72
Cuphea silenoides	241	....	264
Diadem, Ranunculus	169	....	192
Duke of Machester, Wood's Picotee	25	....	48
Fuchsia Fulgens	241	....	297
Gardoquia Hookeri	1	....	24
Governor, Ranunculus	169	....	192
Heartsease Seedlings, 1, 2, 3	148	....	168
Heartsease ditto A, B, C, D, E	121	....	—
Kennedia Marryatti	217	....	239
Lobelia azurea	241	....	264
Lobelia azurea grandiflora	217	....	239
Lobelia propenqua	217	....	239
Nuttalia Grandiflora Superba	241	....	264
Penstemon gentiaoides	241	....	264
Petunias, Seedlings, 1, 2, 3, 4, 5 and 6	121	....	—
Sparaxis decorra	73	....	94
Sparaxis Doubreeana	73	....	94
Sparaxis formosa	73	....	94
Sparaxis venustum	73	....	94
Superba Pink, Wood's	25	....	48
Tecoma jasminoides	221	....	298
Triumphant, Pink, Ibbett's	25	....	48
Verbena Tweediana	1	....	24
Vicar of Wakefield, Dahlia	97	....	—
Victoria I Ranunculus	169	....	192

GENERAL INDEX.

	PAGE.
Acacia, on the greenhouse species of	36
A Clergyman, J. S. remarks by	69
A Clergyman's Daughter, Culture of Phlox Drummondii by	217
A Constant Reader, Query by	118
Acropera Lodigesii, noticed	113
A. D. on striking the Verbena Melindria by	145
Adolescens, Queries by	140
Adolphus Ranunculus, description of	192
A Foreman of a London Nursery, on raising Heaths from seeds by	124
" " remarks on the occasion by	36
Aggripina Picotee, description of	197
A Lady, Query by	211
Alpha, Query by	20
Alspice, Remarks on	71
Alstromerias, on the culture of	247
Amateur, Query by	118
Amicus Floribus, on the genus Lupinus by	104
Anagallis Phillipsii, Remarks on	236
" Morelli, notice of	118
An Admirer of Dahlias, answer by	92
An admirer of the Cabinet, on Heartsease by	20
An Amateur, culture of Roses by.	135
" Gardener, on propagating Balsams by	133
" of the Metropolis, on Campanulas by	70
An Ardent Amateur, culture of the tree Peony by	146
An Enquirer, on impregnating Calceolarias, &c. by	227
A Lover of Herbaceous Plants, Query by	294
A Subscriber, Query by	118
A Three Year's Practitioner, Orchideæ by	35
A Practical Heath Grower, on Cape Heaths by	6
A New Subscriber, Query by	66
An Old Florist, on raising Carnations from seed	227
" Subscriber, on Bins for holding Soils, &c. by	156
" " Query by.	66
" " List, &c. of Plants, by	246
Anometheca cruenta, on raising from seeds	20
An operative, on striking Cuttings in water	173
Ants, Remarks on destroying	94
April, Floricultural Calendar for	96
Appleby Mr Thomas, on (Geraniums), Pelargoniums	8
" " on the culture of Pelargoniums, by	53
A Practical Gardener, Culture of Pinks by	31
" " in Staffordshire, on potting Greenhouse Plants by	39
Aquatics, on Tender	48
Aroma of Flowers, on the	68
Auricula, on the culture of	30, 47, 101
" on Soil proper for	104
A Young Amateur, on fumigating Plants in Hothouses by	123
Azalea Seymouri, noticed	187
Baeria chrysostama, noticed	210
Balsams, on propagating by cuttings	133
" on the Culture of	171

	PAGE
<i>Banksia accidentalis</i> , noticed	17
Barratt, Mr. William, on the culture of Fuchsias by	12
" " Answer by	140
" " Description of <i>Mimulus Cardinalis coccinea</i> by	202
<i>Begonia platinifolia</i> , noticed	233
" <i>monoptera</i> , ditto	113
" <i>octopetala</i> , ditto	89
" <i>insignis</i> , noticed	293
<i>Begonia Venusta</i> , Reference to Plate	72
Bloomwell, Dialogue between, &c.	221, 268
<i>Blumenbachia multiflora</i> , noticed	235
<i>Bolbophyllum coccineum</i> , noticed	233
" <i>saltatorium</i> ditto	187
" <i>barbigerum</i> , ditto	89
Bone manure, on	167
Botanical Society, Meeting of	70
Botany, Science of	164
" " Reviewed	116, 181
Botanist, Remarks by	216
Boyce, Mr. William, on the culture of Herbaceous plants	147
<i>Brassavola cordata</i> , noticed	17
<i>Brodia grandiflora</i> , noticed	235
<i>Broughtonia coccinea</i> , ditto	17
Browne, Mr. James, List of plants by	50, 84
<i>Brugmansia aurea</i> , Remarks on	144
Briant, Mr. William, on the Hyacinth	106
Bulbous Roots, to flower in three weeks	45
<i>Burlingtonia candida</i> , notice of	41
Cactus, on the culture of the	21
<i>Calochortus</i> , Remarks on	71
<i>Calceolarias</i> , Reference to plate	236
" on impregnating	227
<i>Calliprora lutea</i> , noticed	118,
<i>Camellia</i> , Query on the	140
" Lists of new kinds of	172
" Culture of the	120
" Descriptive list of	267
<i>Campanulas</i> , Remarks on	70
<i>Catalpa intermedia</i> , var. <i>pallida</i> , noticed	17
Cape Heaths, on propagating by seeds	124
" Bulbs, Query on growing	67
Carnations, List and description of	111, 129, 197
" and Picotees, on raising from seed	227
C. B. B. On the culture of the <i>Nelumbium</i>	110
" Answer by	49
" on Tender Aquatics by	67
" on the culture of <i>Cylamens</i> by	58
C. C. B., on heating a pit by	73
<i>Cereus serpentinus</i> , noticed	113
" <i>Akermania</i> , ditto	260
<i>Cereopegia stapeleformis</i> ditto	113
Champion Picotee, description of	198
Chinese Gardening on	24
" Primrose, Query on the double	66
" Roses, on the heights of the sweet scented	167
<i>Chryseis Compacta</i> , noticed	113
Charles Mr. I., on blooming the Hyacinth by	45
<i>Chysis, aurea</i> , noticed	89
<i>Chrysostoma tripteris</i> , ditto	185

	Page
Chorizema, Remarks, on ditto	268
Clair, Mr. W. H. St., on propagation of Greenhouse plants by	189
Clarkia, Query on the double	66, 92
" Answer on ditto	118, 140
" gaurioides, noticed	114
" rhomboidea ditto	233
Clark Mr. J. P., Remarks by	71
Clematis Florida var. Siebaldi, noticed	233
" cœrulea, noticed	187
Clericus, Culture of the Camillea by	129
" Remarks by	167
" on Greenhouse plants by	144
Clianthus puniceus, on the	188
Colchicum, &c. on the	189
Cook, Mr. J. C. on the Pansey by	219
Comet Picotee, Description of	199
Conductor, Query by	66
" ditto	66
Conquering Hero Carnation, description of	154
Convolvulus diversifolia, noticed	291
Correa Milnerii, Remarks on	268
Coreopsis longipes, noticed	187
Cottage Farmer, Remarks by	296
Cowanea plicata, noticed	260
Cratægus coccinea, ditto	137
" Flava, ditto	189
" Glandulosa, ditto	17
" Flava var. Lobata, ditto	64
" Oxycanthus var. Oliverian, noticed	64
Creepers, on ornamental	20
Crinum, on the management of the	11
Cyclamens, on the culture of	20, 58
Cypripedium purpuratum, noticed	260
Cytisus Æolicus, noticed.	137
Dahlia, on the	20, 167
" on the culture of the	105
" a List of fifty sorts of the	67, 69, 72
" on obtaining large flowers of the	216
" on raising seedlings	150
" on the colours of the	236
" on var. Sulphurea elegans	45
" Grower, Query by	294
Daniel Professor, on the climate of Hothouses by	255
Datura guayaquilensis, noticed	114
Daviesia ulicina, noticed	90
December, Reference to Plate	297
" Calendar of	298
Defiance Carnation, description of	112
Delphinium chinensis var. albiflora, Query on	211
" chinensis var. albiflora, Answer on	262
" Barlowi, noticed	114
" intermedium var. pallidum, noticed	209
" montanum, noticed	96
" tenuissimum ditto	234
" vimineum	234
" grandiflora, on the	152
Deutzia scabra, on the	188
Diadem Ranunculus, noticed	192
Dipodium punctatum, ditto	234

	Page
<i>Dioscorea tilliformis</i> , ditto	18
Duchess of Devonshire, Carnation, noticed	119
<i>Duranta Eleusi</i> , Remarks on	262
Earl Grey Carnation, Description of	154
Earth, a substitute for Bog	119
Earwigs, to destroy	67
<i>Echinocactus sessiliflorum</i> , noticed	114
<i>Echeveria racemosa</i> noticed	187
<i>Epidendrum chloroleusum</i> , noticed	90
" <i>diffusum</i> , noticed	114
" <i>coriaceum</i> , ditto	209
" <i>nocturnum</i> , ditto	185
" <i>crassifolium</i> , ditto	41
<i>Epigea repens</i> var. <i>rubiconda</i> , ditto	137
Epiphytes. Treatment of Orchideæ by	121
Ericas, Query on the Management of	44
" on propagating from seeds	12
Errington Mr. R., culture of the Neapolitan violet	25
<i>Erythrolena conspicua</i> , culture of the	29
" <i>laurifolia</i> , culture of the	30
<i>Eschscholtzia</i> . Remarks by	22
<i>Eucardium concinnum</i> , noticed	185, 209
<i>Eulophia macrastachya</i> , ditto	209
<i>Euphorbia fulgens</i> , ditto	90
<i>Euphorbia Jacquiniiflora</i> , ditto	68
<i>Eutoca visiosa</i> , ditto	137
" <i>wrangalina</i> , ditto	185
Evergreen Shrubs, on planting of	280, 265
" on propagating of	201
Ferns, a list of Foreign	73
Flagrans <i>Pelargoniums</i> , Remarks on	57
Flora's Garland Carnation, description of	129
Flora, Query by	20
Flower Garden, Remarks on the	175
" Review of the	175
Flowers, on producing different colours of	174
" on giving effect to the colour of	46
" Query on a list of one hundred	66
" seeds, a list of the best	122
" a chapter of	215
" on the colours of	227
Food of Plants, on the	50
Frogs, Query on	92
Frost Mr. Jack, on restoring frost affected plants	4
<i>Frittilaria</i> , Query on the	140
<i>Fraxinellas</i> , on the	59
F. S. Query by	118
<i>Fuchsia</i> , on the culture of	12
" <i>Groomiana</i> , noticed	144
" <i>fulgens</i> , Remarks on	263
Furnace. Query on the heat of a	67
Fyffe Mr. John, on the culture of heaths	169
<i>Gailardia picta</i> , on the	188
" <i>bicolor</i> var. <i>Drummondii</i> , noticed	64
Gaines Mr. N. Remarks by	95
<i>Galphimia glauca</i> , noticed	138
<i>Gardenia panna</i> , noticed	161
<i>Gardoquia Hookeria</i> , ditto	24
<i>Genista monosperma</i> , ditto	18

	Page
Gerania, on Pelargoniums by	151
Geraniums, Remarks on	94
" on preserving through the winter	94
" on the culture of	8
Gesneria enlongata, noticed	202
" letereti, ditto	114, 260
" Sellarii, ditto	90
" Lindleii, ditto	260
" Sellarii, Remarks on the	263
" sceptrum, var. ignea	161
G. H. S. Treatment of the Erithryna laurifolia, by	30
Gloria Florum Carnation, description of the	155
Governor Ranunculus, noticed	192
G. R., on the Auricula by	101
Grandissima Pelargonium, on the	57
Grabowskii Coerhavifolia, noticed	261
Green Fly, on destroying the	214
Greenhouse, Plan of a	1
" Plants, on the propagation of	199
" Plants, on re-potting	36
Greenhouse, on fumigating	123
Hall, Mr. J., Culture of Mesembryanthemus, by	87
Hamilton, Mr. W. P., Query by	44
Hayward, Esq. Joseph, on Theory and Practice by	50
" on the food of Plants by	50
Heartsease, on Superb	93
" on	20
" culture of the	52, 219
" Query on	66
" Query on the best season for sowing	211
" History of the	163
" noticed	168
Hebranthus Andersoni, Texamus, noticed	284
Heaths, on the culture of	269
" on the propagation of Cape	6
Heracleum asperum noticed	144
Heuchera Cylindriacæ, ditto	44
Hippeastrum breviflorum, ditto	64
" ambiguum var. longiflorum, noticed	41
Hosackia stolonifera, noticed	234
Hot Water, on heating by	45, 67
Hothouses, on the climate of	255, 271
Hours of the day, List of plants, indicating the	84
Hayacarnosa, culture of the	12, 37
Humerii Pelargonium, on the	57
" on blooming in Water Glasses	45
Ibbet, Mr. Thomas, culture of the Pink by	78
Insects, on the destruction of	262
Impatiens scapiflora. Remark on	209
Ipomea and Convolvulus, description of genera	216
Ipomopsis Elegans, Query on the	44, 91
Ismene Amanaceas, noticed	42
Ispagan Baxterii, noticed	18
Ixias, on the culture of	266
Jacobus, Remarks by	67
Jacques's Georgiana Carnation, Description of	156
J. F. Query by	118
J. G. Query by	44

J. R. List of Foreign Ferns by	173
J. W. D. Remarks by	167
Kalmia, Query by	92, 236
" Remarks by	69
Kamel G. J., List of Camellias by	172
Kennedia Maryattii, Reference to plate	240
Kernan, Mr. John, Query by	140
" " Answer by	118, 140
" " Letter by, on the decease of Joseph Sabine Esq.	94
King Mr. I., Query by	64
Lachenalia pallida, noticed	115
" glaucina noticed	63
Lady bird, on the	143
Lancashire Lass Carnation, Description of	55
Larkspur, on Delphinium grandiflorum, by	152
Loelia anceps, noticed	115
Lilium peregrinum, noticed	42
Limanthus Douglasii, noticed	64, 115
Lilium astrosanguineum, Remarks on	263
Lilly, culture of the	40
Linum monogynum, noticed	161
Lisochilus speciosus, noticed	90
Lobelia azurea, Reference to Plate	284
" cardinalis var. Millerii, noticed	64
" polyphylla, noticed	65
" Canavalesii, ditto.	261
" Siphilitia, ditto	261
" cœrulea, Reference to plate	
" propinqua, ditto	239
" polyphylla, noticed	65
Lolotte, Query by	92
Loudon's Mr. G. C. Suburban Gardener Reviewed	257, 285
Lupinus, on the Genus	104
" versicolor, noticed	235
Mackenzie, Mr. C. Remarks by	237
Magnificent Carnation, Description of	155
Major Mr. Joshua, on pruning and thinning Plantations, &c. by	241
Malva Munroana, noticed	18
Maxillaria Sieeli, ditto	261
Mayo Herbert, on human Physiology	114
Medicus, Query by	44
Megeseliolum maximum, noticed	161
Menonvillea filifolia, noticed	65
Mesembryanthemums, Culture of in the open air	87
Mimosa prostrata, on the	167, 188
" sesitiva, noticed	144
Mignonette, on the tree	41
Mimulus cardinalis coccinea, Description of &c.	202
" Claptonia, on the	188
" Hodsoni, on the	188
" Harrisonia, noticed	291
Monachanthus myanthi, noticed	115
Moonraker Picotee, description of	198
Morna nitida, noticed	91
Mountjoy, Mr. R. S. answer by	93
Muscaria commutatum, noticed	65
Monachanthus Discolor, var. Veridiflorens, noticed	291
Miltonia Spectabilis, noticed	292
Narcissus minor pumila, noticed	167
Nectaroscordum siculum, noticed	18

	PAGE
Snails, to destroy	119
Society, London Horticultural Meeting	141, 190, 238,
" Metropolitan, ditto	168
" Sheffield, ditto	214
" Thuralston, ditto	213
Soils, on a Binge for holding	156
Solanum Herbertii, on the	188
Sparaxis Stellarias, noticed	162
" Reference to plate of	95
Spartium acutifolium, noticed	187
Spiranthus bracteosa, ditto	65
Spiranthus japonica. Remarks on	236
S. R. P. on the culture of the Dahlia by	105
Stackhousia monogynia, noticed	19
Stenactis speciosa, Query on	262
Stranvæscia glaucescens, noticed	162
Subscriber, on a plan for a Greenhouse by	1
Suburban Gardener, &c. Reviewed	257, 285
S. W. Query by	262
Symphoricarpos, noticed montanus, noticed	163
Timothy, Query by	107
Tradescantia crassifolia, noticed	45
Tree Pæony, culture of the	146
Trees, on pruning Timber	231
" on the age of	45
" On pruning and thinning	241, 249
Trichocentrum fuseum, noticed	16
Tricondicum obtusum, ditto	45
Tritelia uniflora, noticed	45
Tropæolum brachycerus, noticed	65
T. T. B. on the tree Mignonette by	44
Tulbagia Ludvigiana, noticed	45
" violalacea, ditto	21
Tulips, Exhibition of	45
Tweedia cœrulea, noticed	22
Venus Carnation, description of	154
Verbena Aubletia var. Drummondii, noticed	45
" Abbletia var. Drummondii Vilaeriana, ditto	263
" melindris, on striking the	145
" Tweediana, Reference to plate	24
" Lambertia, noticed.	19
Victory, Pelargoniums, Remarks on	57
Victoria Ranunculus, Reference to plate	192
Water, Remarks on	203
W. C. Remark by	15
W. C. J. on Heracleum asperum	144
W. C. R. List of Flower seeds by	122
Whale, Mr. William, on striking the Orange by	201
William the Fourth Carnation, description of	155
Willis Mr. J. R. on forcing Roses by	27
Wire Worm, on destroying the	21, 28
Wiganeira Caracasana, noticed	186
Wistaria Sinenis, on	118
Witsenia Ludvigiana, noticed	45
Wood Lice, on destroying	67
W. W. Query by	236
Yeatmaniana, pelargonium noticed	57
Zygopetalon cochleare, noticed	210

